SERVICE MANUAL & PARTS LIST (without price)

Pocket PC

EG-800 (JX-590A)

CASSIOPEIA

SEP. 2000

EG-800

INDEX

CASIO®

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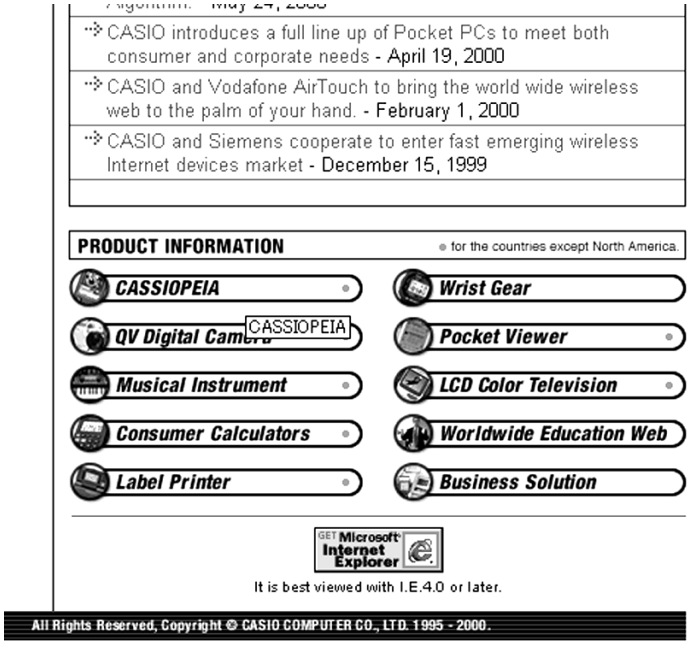
1. MAIN FEATURES

Visit the following CASIO Tokyo Web site whenever you want to obtain the information (Main Features, Specifications so on) and the software concerning CASIO overseas products.

Address(URL): **http://www.casio.co.jp/English/**

Visiting this home page, you will see the screen display as shown to the right.
You can select CASIO overseas products genre using this page.
Select ***Business Solution*** concerning EG-800.
You can obtain the significant and available information (Main Features, Specifications, FAQ so on) and the application software concerning overseas CASIOPEIA products.
You can visit CASIO INC, UK and GMBH home page from above ***Business Solution*** also.


CASIO introduces a full line up of Pocket PCs to meet both consumer and corporate needs - April 19, 2000
CASIO and Vodafone AirTouch to bring the world wide wireless web to the palm of your hand. - February 1, 2000
CASIO and Siemens cooperate to enter fast emerging wireless Internet devices market - December 15, 1999
PRODUCT INFORMATION
for the countries except North America.
CASSIOPEIA
Wrist Gear
QV Digital Camera
CASSIOPEIA
Pocket Viewer
Musical Instrument
LCD Color Television
Consumer Calculators
Worldwide Education Web
Label Printer
Business Solution
GET Microsoft Internet Explorer
It is best viewed with I.E.4.0 or later.
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Visit the following Web site for detail concerning EG-800.

Address(URL): **http://www.casio.co.jp/English/system/pa/products/ht/eg800.html**

Main features

1. Robust design is adopted like a CASIO G-Shock watch.
   drop test to 0.75 meters and water protection to industry standard IP level 2.
2. Clearer and transparent touch panel is adopted.
   However, it is easier to scratch the touch screen compared with the other CASSIOPEIA products touch screen without the protection sheet.
   Therefore, be sure to wear the touch screen sheet (item 72) as shown in EXPLODED VIEW.
   Refer to "Using the Touch Screen Sheet" in General Guide in this manual.
3. To realize above the robust design, slim sized Lithium polymer rechargeable battery is adopted for the first time as CASSIOPEIA products.
4. Lithium battery for memory backup is assembled onto Key PC Board.
   This battery can be supplied one of the spare parts. Refer to PARTS LIST in this manual.
   Note that user can not replace this battery.
   User can replace memory backup battery concerning the other CASSIOPEIA products.

2. SPECIFICATIONS

Model: EG-800

Display: 240 × 320 dots
TFT Color LCD (65,536 colors)

CPU: VR4122

Memory: 32MB

Interfaces: Serial: RS-232C, 115.2 kbps max.
Infrared: IrDA Ver. 1.1
Range: 30 cm max.
USB (Client)

Card Slot: CompactFlash card, 3.3V Type I/ Type II

Headphone jack: ø 3.5 mm stereo output
Accepts monaural earphone, stereo earphones/headphones

Power Supply: Main: Rechargeable battery pack JK-210RB/RBM (Lithium ploymer battery) JK-210RBL (Lithium-Ion battery)
AC adapter (AD-C59200)
Backup: Built-in lithium button type battery

Power Consumption: 4.0 W

Approximate Battery Life (Normal Temperature)

Main: (Actual time may be shorter due to conditions when charging.)
M Type Battery Pack (JK-210RBM)
8 hours: Continuous input and data display at a ratio of 1:10, with screen brightness at lowest possible level.

- Even when the unit is turned off, small amounts of power are required to retain memory contents, etc. This can cause batteries to go dead even when you do not use the unit.
- The actual amount of operation time that can be expected from batteries depends on operating conditions, settings, and other variables. (Refer to page 4.)

Built-in Backup Battery (VL2320):
24 hours: After display of the low main battery message, CASSIOPEIA power left off

Approximate Charge Time (Normal Temperature, Battery Pack Attached to CASSIOPEIA)

- Charge time is longer for the first charge after purchasing the unit or installing a new battery pack.

M Type Battery Pack: 5 hours to full charge
Built-in Backup Battery: 24 hours (90% charge)

Operating Temperature: -5˚C to 50˚C (charging 10˚C to 35˚C)

- Though the CASSIOPEIA is designed for durability, you should always take care to avoid subjecting it to impact and rough handling.

Drip-Proofing: IP × 2

Dimensions: 85(W) × 135(D) × 25.5(H) mm (with M Type battery pack)

Weight: Approximately 295g (with M Type battery pack)

Current consumption:

Note:

1. When measuring these current, it is recommended to use the analog ammeter to make the measurement easier due to protecting the ammeter from noises.
2. Make LCD display contrast suitable (default) condition before measurement.
3. Measure under the ambient temperature range 15˚C~35˚C

Operation Mode	Input Voltage	Current Consumption
Main Menu of **OPERATION CHECK** in this manual	Rechargeable Battery : 4.0 ± 0.1V	≤180mA
* POWER CONTROL of **OPERATION CHECK**	Rechargeable Battery : 4.0 ± 0.1V	≤370mA
* POWER CONTROL of **OPERATION CHECK**	AC Adapter : 5.9V ± 0.1V	≤370mA
Power/OFF	Rechargeable Battery : 4.0 ± 0.1V	≤2.5mA
Power/OFF	Lithium battery for back-up 3.0 ± 0.1V	≤1.9mA

*Tapping **5 POWER CONTROL** in the OPERATION CHECK Main Menu screen display, the following display will appear.

Currently CPU clock : 150 MHz
VT Clock : 50 MHz

Push Action key to exit

Voltage detection:

Main (Rechargeable) Battery:

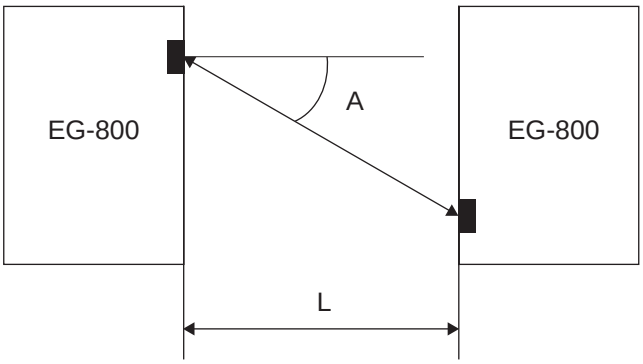
VDET2 : approximately 3.1 V (Forced power OFF)

Back-up Battery:

VDETS : approximately 2.8 V (Low battery message)

Unit Alignment Condition for data transfer using IrDA :

Length (L)	Angle (A)
L ≤ 30 cm	A ≤ 15˚



3. UNPACKING

3-1. Optional Parts and Accessories which can be supplied as the spare parts

Some parts can be supplied as spare parts.
Its **PARTS LIST** is as follows;

Item	Code No.	Parts Name	Specification
201	1002 5916	CABLE/USB	S1467A
202	1001 2204	CASE/SOFT	JX-561HC
203	1001 7213	ADAPTER/AC	AD-C59200U
204	1001 5583	ADAPTER/AC	AD-C59200G
205	1000 6300	CORD/AC	CBL-K799-AC-EU
206	1000 6299	CORD/AC	CBL-K799-AC-JU
207	1002 9319	CORD/AC	SP23-17688
208	1002 9316	CORD/AC	NQ957

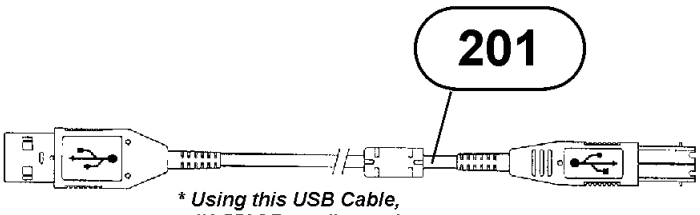
Refer to PARTS LIST in the service Manual for EM-500 also.

The illustrations and information of these spare parts are shown in the next page.
See the next page.

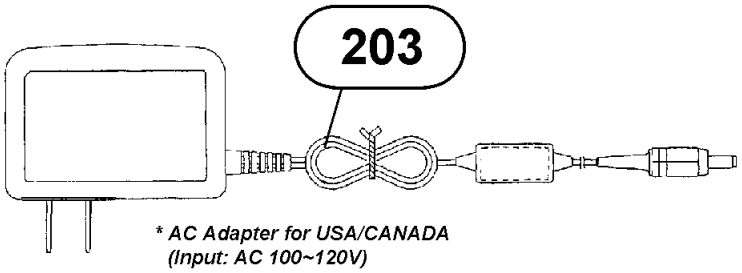
3-2. The other significant Optional Parts and Accessories

1. **Rechargeable battery pack (Main battery)**
   If this battery pack is not set, the unit does not work.
   Be sure to set this battery pack before using EG-800 unit.
   There are three kinds of battery packs for EG-800 unit.
   S Type Battery Pack: Model Name- **JK-210RB** (875 mAh)
   M Type Battery Pack: Model Name- **JK-210RBM** (1450 mAh)
   L Type Battery Pack: Model Name- **JK-210RBL** (2625 mAh)

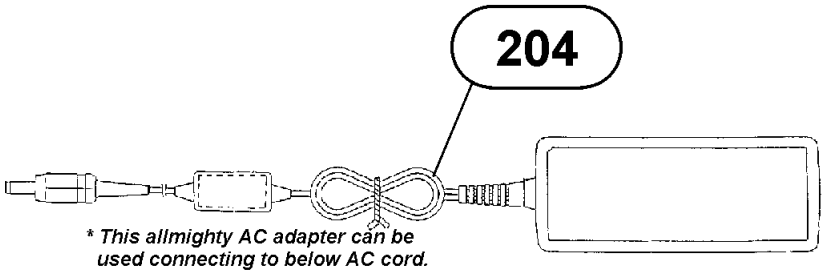
   Therefore, Battery Life Time Ratio is approximately as follows;
   S Type: M Typ: L Type ≒ 875: 1450: 2625
   For the other information, refer to the Hardware Manual for EG-800.
2. **Cradle with RS-232C serial cable**
   This cradle is an essential one to perform data communication between PC and EG-800 unit.
   Model Name: **JK-550CR**
   A RS-232C serial cable is enclosed in this JK-550CR.
   Using item 201 USB cable in above table, this cradle can be connected to PC also.
   Refer to page 38 in the Hardware Manual for EG-800.
3. **AC Adapter/Charger**
   As its name suggests, the AC Adapter/Charger functions as both a charger for the battery pack and as an AC adapter.
   Model Name: **CHC59200U** (Output: DC5.9V)
   An AC power cord and a secondary DC power cord are enclosed in this CHC59200U.
   AC power cord corresponding to shipped area (country) will be supplied.
   One of Item 205~208 AC cords in above table will be enclosed in this CHC59200U.
   For the other information, refer to page 35~36 in the Hardware Manual for EG-800.
4. **Optionally available CDMA Digital Mobilephone Cable (9-pin) for North America**
   See page 42 in the Hardware Manual for EG-800.
   Mode Name: **JK-541CA**
5. **Analog Transmission Telephone MODEM for North America**
   Model Name: **JK-720MA**



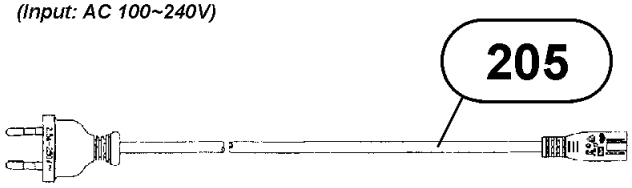
** Using this USB Cable, JK-550CR cradle can be connected to PC*



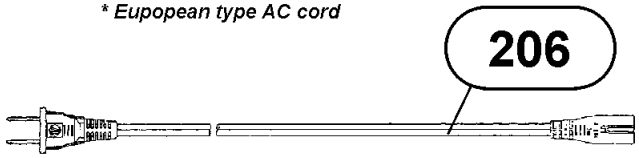
** AC Adapter for USA/CANADA (Input: AC 100~120V)*



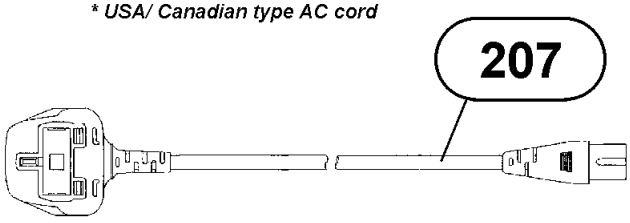
** This allmighty AC adapter can be used connecting to below AC cord. (Input: AC 100~240V)*



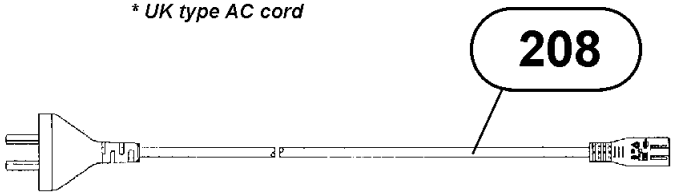
** Eupopean type AC cord*



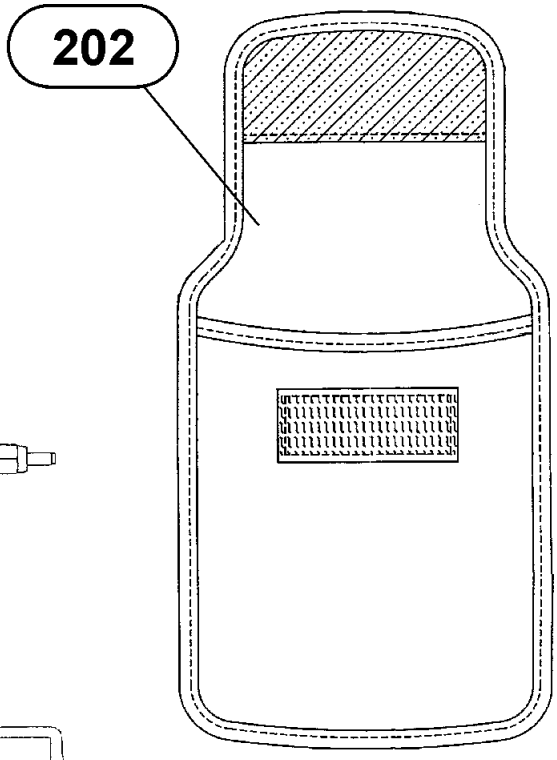
** USA/ Canadian type AC cord*



** UK type AC cord*



** Ausralian type AC cord*



**** Case for JK-210 main battery pack***

Refer to the following web site Home page concerning below optional parts and Accessories (6~10).

URL- **http://www.casio.co.jp/English/ce**

URL- **http://www.casio.co.jp/English/system/pa/products/ht/eg800.html**

6. CF camera card

This digital Camera Card allows EG-800 unit user to take still or movies and send them to their home or office instantly.

Model Name: **JK-710DC**

7. Stereo Earphone with Remote Control

For use with music, reading E-mail and E-book with the remote control.

Model Name: **JK-840HE**

8. RS-232C Cable

Using this cable, EG-800 unit can be connected to PC's RS232C serial terminal directly.

Model Name: **JK-580CA**

9. USB Cable

Using this cable, EG-800 unit can be connected to PC's USB terminal directly.

Model Name: **JK-582CA**

10. Car Adapter

Attach it directly to the EG-800 or to the EG-800 cradle to provide power and recharge the batteries.

Model Name: **JK-210CA** (Input: DC 12~24V/ Output: DC 5.9V)

11. CompactFlash card

16MB: CF-16SC-S

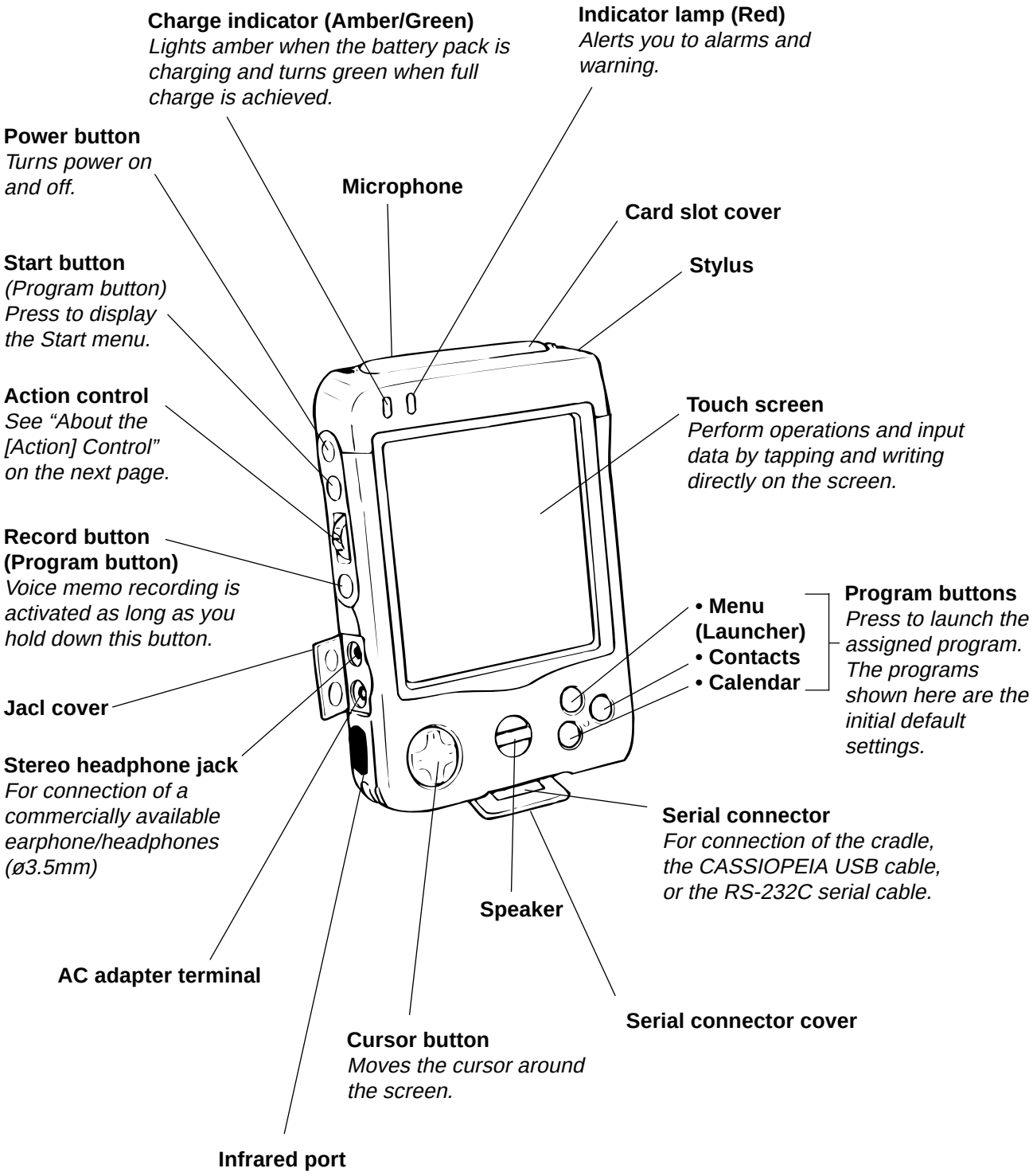
64MB: CF-64SC-S

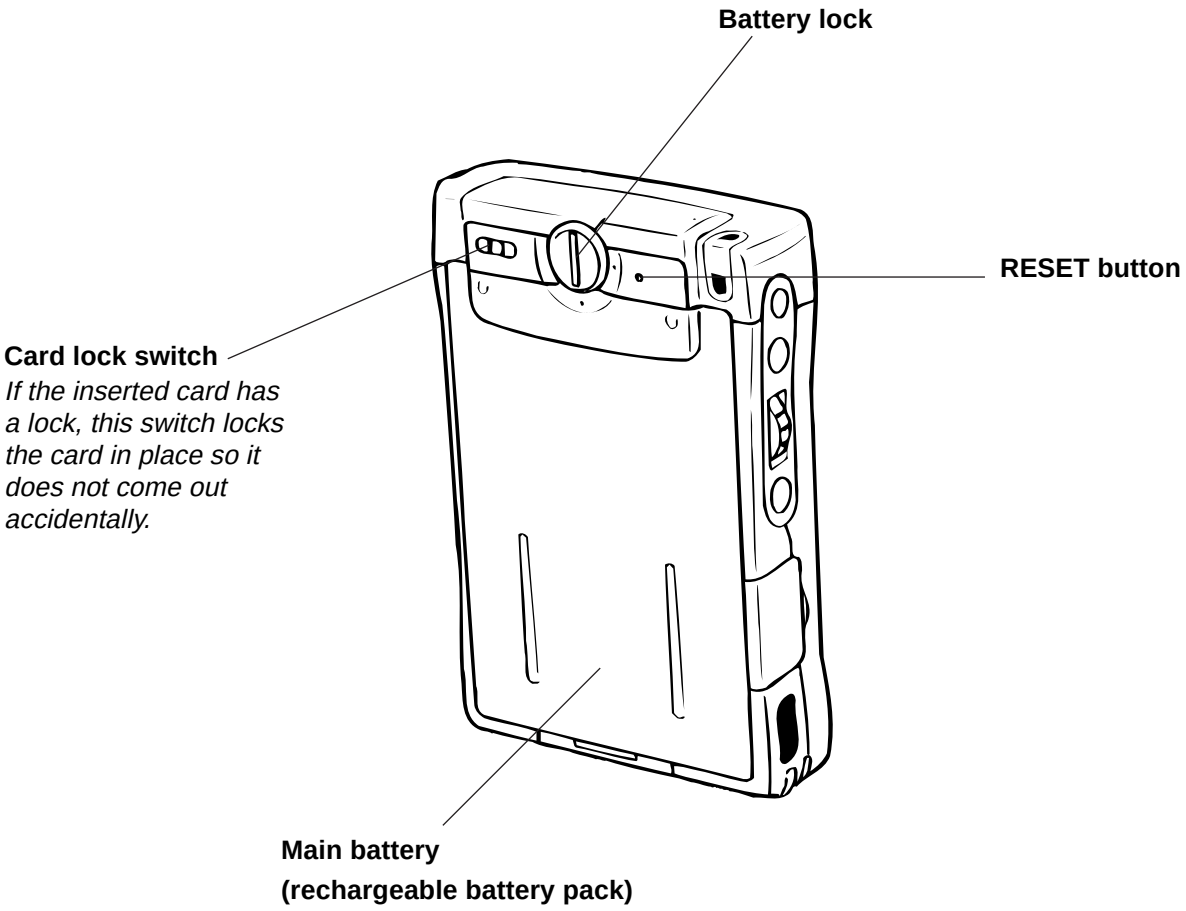
256MB: CF-256SC-S

Refer to General Guide in this manual concerning CompactFlash card.

4. GENERAL GUIDE and INITIAL SET UP

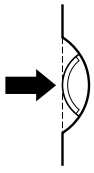
4.1. General Guide


Charge indicator (Amber/Green)
Lights amber when the battery pack is charging and turns green when full charge is achieved.
Indicator lamp (Red)
Alerts you to alarms and warning.
Power button
Turns power on and off.
Microphone
Card slot cover
Stylus
Start button
(Program button)
Press to display the Start menu.
Action control
See "About the [Action] Control" on the next page.
Touch screen
Perform operations and input data by tapping and writing directly on the screen.
Record button
(Program button)
Voice memo recording is activated as long as you hold down this button.
• Menu (Launcher)
• Contacts
• Calendar
Program buttons
Press to launch the assigned program. The programs shown here are the initial default settings.
Jacl cover
Stereo headphone jack
For connection of a commercially available earphone/headphones (ø3.5mm)
Serial connector
For connection of the cradle, the CASSIOPEIA USB cable, or the RS-232C serial cable.
Speaker
AC adapter terminal
Serial connector cover
Cursor button
Moves the cursor around the screen.
Infrared port


Battery lock
RESET button
Card lock switch
If the inserted card has a lock, this switch locks the card in place so it does not come out accidentally.
Main battery
(rechargeable battery pack)

About the [Action] Control

Operations can be performed by pressing and rotating the [Action] control.



Pressing the [Action] control performs an operation similar to the Enter key of a computer keyboard.

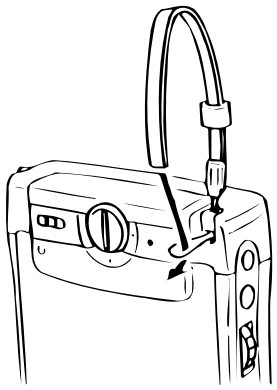
Rotating the [Action] control performs operations similar to the up and down arrow keys of a computer keyboard.

See Pocket PC online help for information about using the [Action] control with each application. The text in the online help indicates an [Action] control press operation as “Action,” and an [Action] control rotate operation as “Up/Down control.”

Attaching the Strap

Attach the strap to the CASSIOPEIA a shown in the illustration below.

1. Attach the card slot cover to the CASSIOPEIA.
2. Pass the strap loop through the strap hole and then pass the other end of the strap through the loop as shown below.



Important ⚠

- Use only the strap that comes with your CASSIOPEIA.
- Never swing the CASSIOPEIA around by its strap.

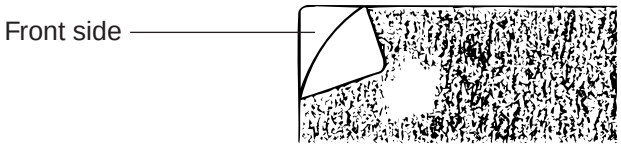
Using the Touch Screen Sheet

The touch screen sheet that comes with the unit protects the touch screen against scratching and other damage. Use the following procedure to affix the sheet to the touch screen.

Important ⚠

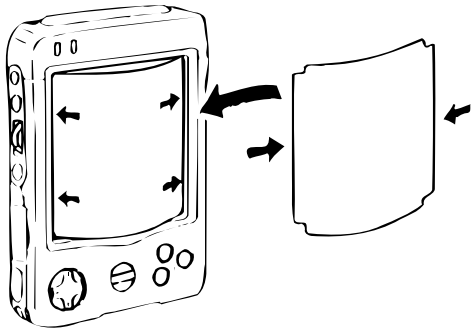
- When setting the touch screen sheet in place, take care not to press down on the touch screen too hard. Doing so can damage the touch screen.

1. Make sure the touch screen is free of dust and dirt.
2. Peel the green film from the touch screen sheet.



- If you have a problem peeling off the green film, try using cellophane tape. Hold the end of a piece of tape about 5 cm long between your thumb and forefinger, adhesive side facing down. Affix the other end of the tape to one of the corner areas the green film and then pull up The tape should pull up the green film.
- The front of the sheet that was protected by the green film should be facing away from the touch screen when you install the sheet.

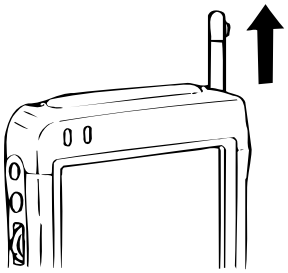
3. Insert the left and right edges of the touch screen sheet into the slits between the touch screen and the unit's case.



- Dust or dirt between the sheet and the touch screen can scratch the touch screen. Take care to make sure that no foreign matter gets between the sheet and touch screen when affixing the sheet.

Using the Stylus

Data input and virtually all other operations are performed using a stylus, which is housed inside the stylus holder in the higher right corner of the CASSIOPEIA.



The following defines the various operations that you can perform with the stylus.

Tap ..... Touch the screen once with the stylus to open items and select options.

Drag ..... Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.

Tap-and-hold ..... Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

Important ⚠

- Take care that you do not misplace or otherwise lose the stylus by always storing it in the stylus holder when you are not using it.
- Take care to avoid breaking the tip of the stylus.
- Use only the stylus that comes with the CASSIOPEIA, or some other stylus type instrument* to perform touch screen operations. Never use a pen, pencil, or other sharp writing implement.
  *(with a soft, blunt point)

Recalibrating the Touch Screen

You should recalibrate the touch screen whenever touch screen response is bad, or when the operation performed is different from the operation you expected when tapping on the touch screen.

To recalibrate the touch screen, press the [Action] control while holding down the [Power] button (or tap , **Settings**, the **System** tab, and then the **Align Screen**). Next, follow the instructions that appear on the screen.

Adjusting Display Contrast

Perform the following operations to adjust display contrast and make figures on the display darker or lighter.

- Tap and then **Settings**. On the **System** tab, tap **Brightness**. Follow the instructions on your screen for adjusting the contrast.
- You can also adjust contrast by holding down [Action] and pressing the top of the cursor button to make contrast darker, and the bottom of the cursor button to make it lighter.

Adjusting Display Brightness

Use the following operations to adjust display brightness to make it easier to read.

- Tap and then **Settings**. On the **System** tab, tap **Brightness**. On the dialog box that appears, tap the **Brightness** tab.
- While holding down the [Action] button, press the right side of the cursor button to make the screen brighter, or the left side of the cursor button to make it dimmer.

Adjusting Auto Dimming Settings

1. Tap and then **Settings**. On the **System** tab, tap **Brightness**.
2. On the dialog box that appears, tap the **Auto Dim** tab.
3. Follow the instructions that appear on the screen to make auto dimming settings.

- You can make separate auto dimming settings for battery power and AC adapter power by checking the appropriate check box.

Changing Applications Assigned to the Program Button

- Tap and then **Settings**. On the **Personal** tab, tap **Button**, and then follow the instructions that appear on the display.

Power Requirements

Your CASSIOPEIA can be powered using either a battery or external AC power.

Battery Power

Two types of batteries are used for power: a main battery and a memory backup battery.
The main battery is a rechargeable user-replaceable battery pack. The memory backup battery is a button type lithium battery that provides the power required to retain memory contents. Note that the memory backup battery is not user-replaceable.

- See "Main Battery and Backup Battery"on the next page for more information about the main battery and memory backup battery.

External AC Power

Connecting the AC adapter or AC adapter/charger to the AC adapter jack on the left side of the CASSIOPEIA unit provides power in place of the main battery. AC power is also supplied through the power terminals on the bottom of the CASSIOPEIA whenever it is placed on the cradle.

- The CASSIOPEIA can operate under AC power only if its rechargeable battery pack is attached. This is true regardless of whether the AC power is being supplied through the AC power jack or the power terminals.
- External AC power also charges the battery pack attached to the CASSIOPEIA. See"Charging a Battery Pack on the CASSIOPEIA" on the later page for more information.

Main Battery and Backup Battery

Your CASSIOPEIA uses two types of batteries for power: a rechargeable user-replaceable rechargeable battery pack for the main battery, and a button type lithium battery for memory backup.

- We recommend that you use the Power Properties to keep informed about the current levels of your main and backup batteries. See the separate *Pocket PC User's Guide* and Pocket PC online help for more information about this properties.

Important ⚠

The following messages appear whenever battery power drops below a certain level.

Main Battery

Recharge the battery pack as soon as possible after the following message appears.
"Main Batteries Very Low
To prevent possible data loss, replace or recharge your main batteries according to the owner's manual."

Backup Battery

Charge the battery pack as soon as possible after the message shown below appears on the display of the CASSIOPEIA. Charging the battery pack also charges the memory backup battery.
"Backup Battery Very Low
To prevent possible data loss, replace or recharge your backup battery according to the owner's manual."

- You can monitor the current battery power level accessing Power Properties or by checking the battery icon in the command bar of the Today screen.
- Whenever the low battery warning message appears, especially if it appears right after you turn on power, follow the instructions that appear on the screen and replace batteries as soon as possible. Continued use under low battery power can cause unstable performance of your Pocket PC.
- Data stored in memory can be lost if you continue operation after the low battery message appears or if you incorrectly load batteries. Be sure to always back up important data on your desktop computer hard disk or on a CompactFlash Card. See *ActiveSync Help* for information about backing up files to a desktop computer.
- See the *Card Backup Tool* manual (PDF file) on the *CASSIOPEIA CD-ROM* for information about backing up data to a CompactFlash Card for information about using the Card Backup Tool program to back up data to a CompactFlash Card.
- Never remove the battery pack from the CASSIOPEIA while memory backup battery power is low. Doing so can cause a loss of data in memory.
- Use only the specified rechargeable battery pack type as the main battery. Never use another type of battery

If unit power turns off due to insufficient power, the following warning message appears on the display the next time you turn on unit power.
"Warning
Due to high current demand by the hardware, the system powered down in order to protect memory contents..."

If unit power turns off due to sudden power drain by a CompactFlash Card, the following warning message appears on the display the next time you turn on unit power.
"Warning
Due to high current demand by the card, the system powered down in order to protect memory contents..."

Important ⚠

Be sure to observe the following important battery handling precautions. Failure to do so can cause batteries to leak, resulting in damage to surrounding items and create the danger of fire and electrical shock.

- Use only the types of batteries specified for use with this unit.
- Charge the battery pack in an area where the temperature is between **10˚C (50˚F)** and **35˚C (95˚F)**. Charging in areas that are very cold or exposed to direct sunlight can cause deterioration and leaking of the battery pack.
- To avoid deterioration and leaking, the battery pack is designed to discharge even when you do not use the CASSIOPEIA. Be sure to recharge the battery pack at least once every three months, regardless of how much you use the CASSIOPEIA during that time.
- A battery pack that loses power too quickly after it is charged is probably near the end of its service life. In such a case, you have to purchase a new battery pack.

Charging the Battery Pack on the CASSIOPEIA

1. Attach the rechargeable battery pack to your CASSIOPEIA.

2. Use one of the three following procedures to charge the battery pack.
   Charge using the AC adapter
   Charge using the AC adapter/charger
   Charge using the cradle

- Charging starts automatically.
- The charge indicator on the CASSIOPEIA lights amber while charging is in progress, and changes to green when charging is complete.
- An M Type battery pack takes about five hours to reach a full charge when the CASSIOPEIA is turned off while charging.
- The time required to attain a full charge is greatly affected by ambient temperature and the type of operations you perform on the CASSIOPEIA while charging is taking place.
- You can normally operate the CASSIOPEIA while charging is taking place.
  However, you will not be able to perform any operation when setting up the CASSIOPEIA the first time after you purchased it, or while charging a new battery pack for the first time.

Using a CompactFlash Card

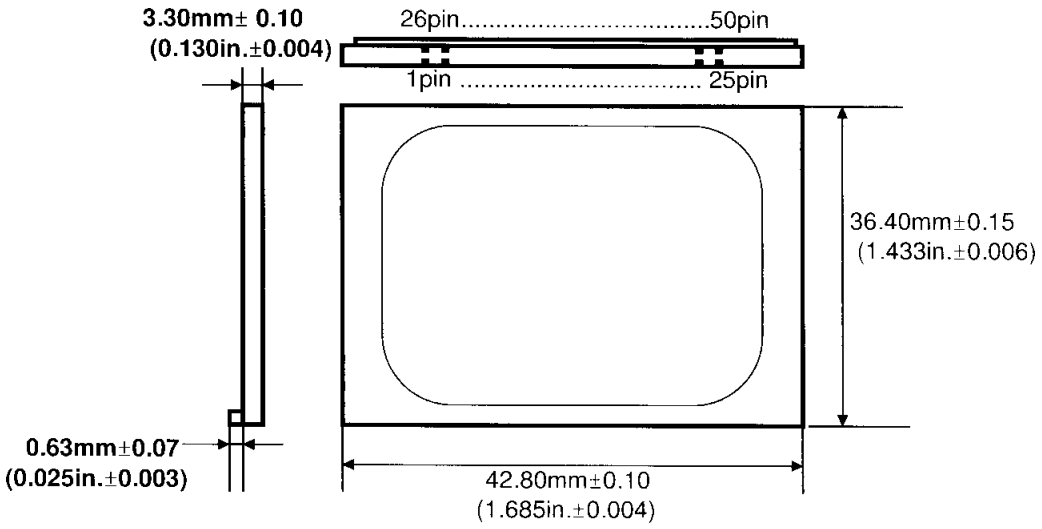
Your CASSIOPEIA supports Type I and Type II CompactFlash cards (3.3V).

Important ⚠

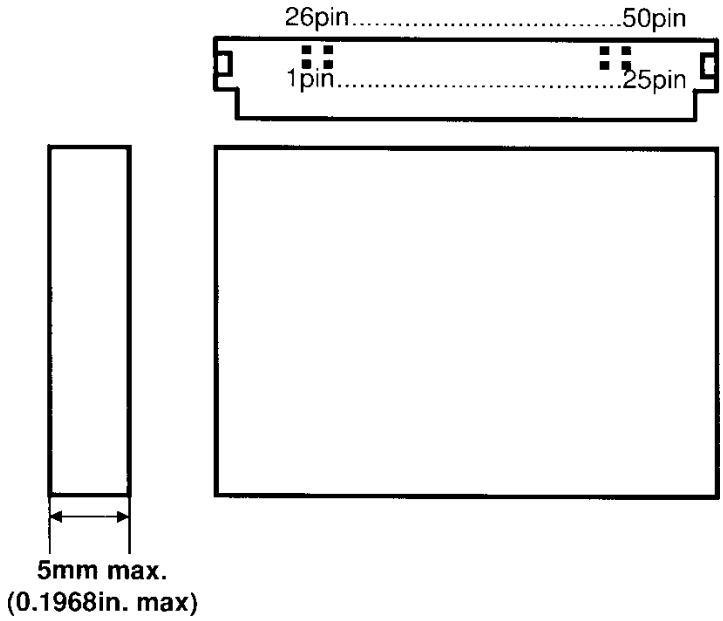
- The card slot cover will not close when certain types of cards are in the slot. When using such a card, detach the strap from the card slot cover, remove the card slot cover from the CASSIOPEIA, and keep the cover in a safe place so you can replace it when you remove the card.
- Gently but firmly slide the card into place as far as it will go, but do not force it. Forcing a card can damage connectors. If you have problems inserting a card, pull it out and check to make sure it is oriented correctly.
- We strongly recommend that you store all unsaved data you are inputting or editing before performing this procedure.
- Sometimes, your CASSIOPEIA may not be able to detect a CompactFlash card. This is indicated when a program on the card does not start up normally. When this happens, remove the card, reinsert it, and then press the CASSIOPEIA RESET button.
- Your CASSIOPEIA supports 3.3V CompactFlash cards only. Cards that can operate on 5.0V only are not supported.

Refer to the next page concerning Type I and Type II CF card.

NOTE
Type I CF Card is different from Type II CF Card with thickness and configuration as shown below.



<Type I Compact Flash Storage Card Dimensions>



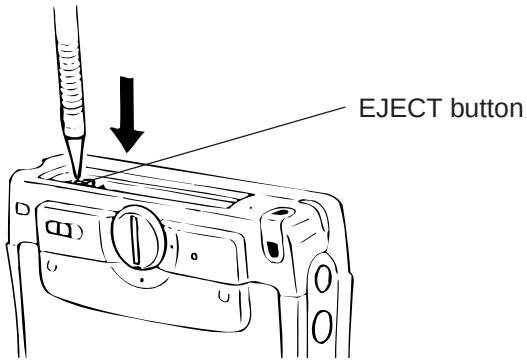
<Type II Compact Flash Storage Card Dimensions>

**** Length and Width of Type I are the same as ones of Type II.***

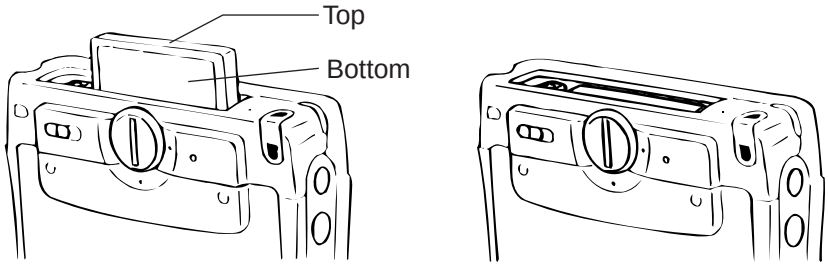
1. Make sure your CASSIOPEIA is turned off.
- Press the [Power] button to turn off power.

2. Remove the card slot cover from the CASSIOPEIA.
- Slide the card release to the Free position.

3. If there is already a card in the slot, use the stylus to pres the EJECT button straight down, and remove the card.



4. Slide the card you want to use into the card slot.
- Make sure the top of the card is facing towards the top of the CASSIOPEIA unit. A card that is not oriented correctly will not slide all the way into the slot.



Carefully slide the card into the slot as far as it will go.

5. Re-attach the card slot cover to the CASSIOPEIA.
- If you are using a digital camera card or another type of card equipped with a lock, slide the card lock to the LOCK setting to secure the card in place.

Infrared Communications

The infrared port of this unit can be used to exchange data with another CASSIOPEIA, or with another device equipped with infrared communication capabilities. Remember that the two infrared ports must be pointed directly at each other when performing communications. The distance between the two infrared ports must be less than 30 cm.
See the *Pocket PC User's Guide* for full details on performing infrared communications.
For infrared data communications with another device, the other device must conform with IrDA 1.1 standards, and it must specifically support infrared data communication with a CASSIOPEIA.

Important ⚠

- Take care so either of the units does not move while infrared data communications are in progress.
- Infrared data communications may be impossible under strong sunlight or inverter type fluorescent lighting.
- Infrared data communication problems can be caused by the distance between the two ports, the angle between the two ports, outdoor sunlight, and low batteries.
- Dirt and dust on the infrared port surface can cause communications errors and other problems. Use a soft, dry cloth to wipe the port clean of dirt and dust.

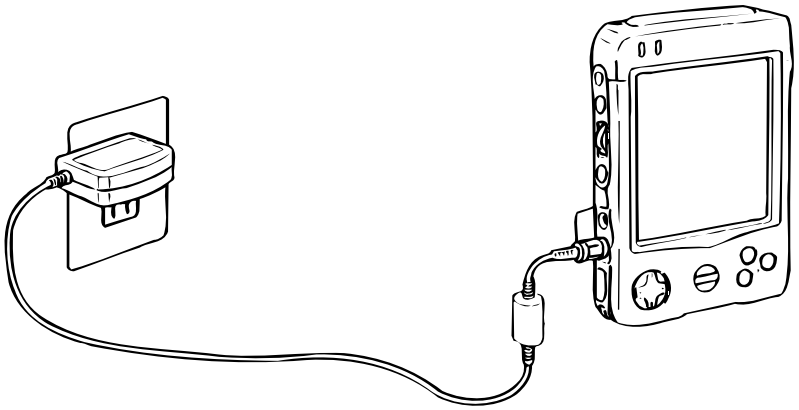
Using Peripherals

This section explains use of the various peripherals that are available for use with the CASSIOPEIA.

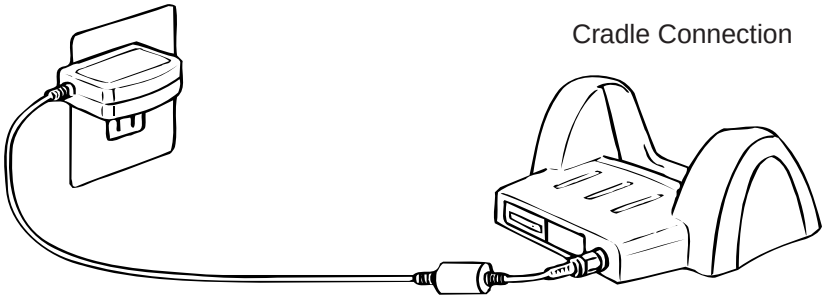
Using the AC Adapter (AC adapter + AC power cord)

You can use the AC adapter to directly power the CASSIOPEIA or to supply power through the cradle. The battery pack charges while the CASSIOPEIA is directly connected to a power source by the AC adapter or while it is on the cradle.
See “Charging the Battery Pack on the CASSIOPEIA” on the later page for more information about battery pack charging.

Direct Connection



Cradle Connection



Warning ⚠

- Use only the AC adapter that is specified for this unit. Use of another type of AC adapter creates the risk of malfunction and bursting of the battery pack.

Important ⚠

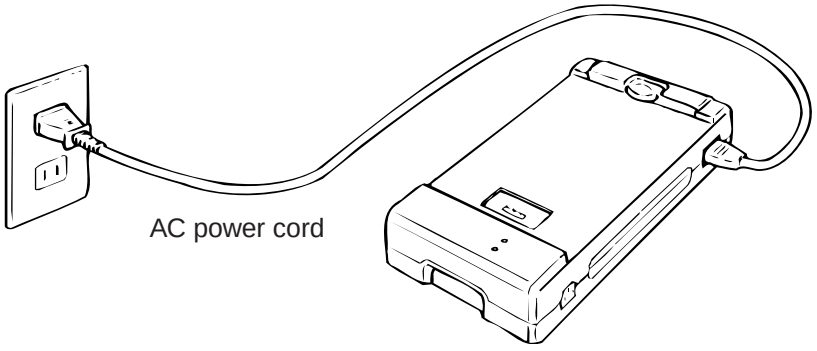
- The CASSIOPEIA will not operate under AC power while the battery pack attached to it is dead. Wait for a while to allow the battery pack to charge before using the CASSIOPEIA.
- Long-term use of the AC adapter can cause it to become warm to the touch. This is normal and does not indicate malfunction.
- Be sure to unplug the AC adapter from the power outlet whenever you are not using it.
- The AC adapter is designed for indoor use only. Never use it outdoors.

Using the AC Adapter/Charger (CH-C59200U)

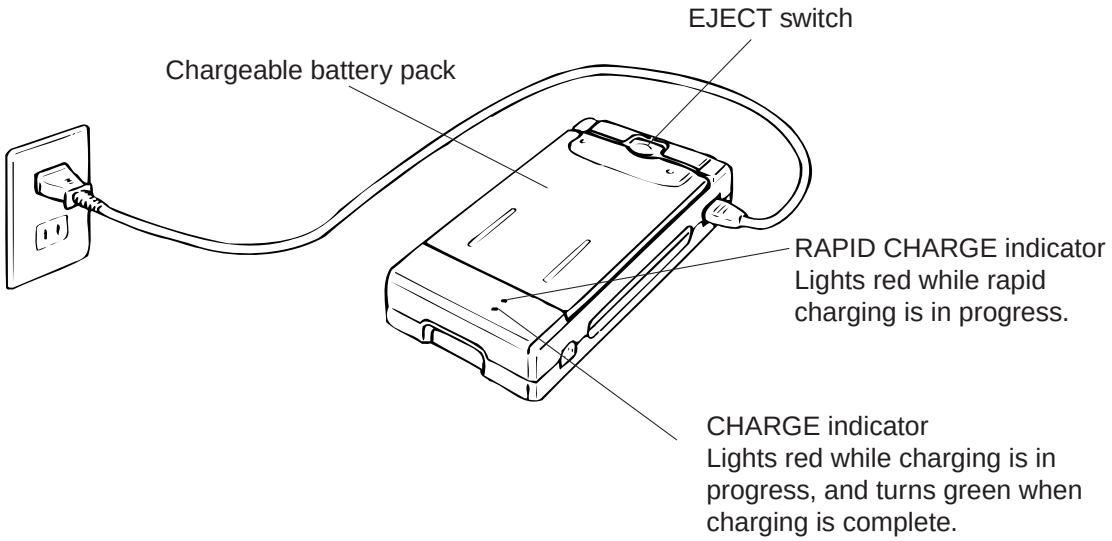
As its name suggests, the AC Adapter/Charger functions as both a charger for the battery pack and as an AC adapter.

■ To charge a battery pack mounted on the AC adapter/charger

1. Plug the AC adapter/charger into a wall outlet as shown in the illustration.

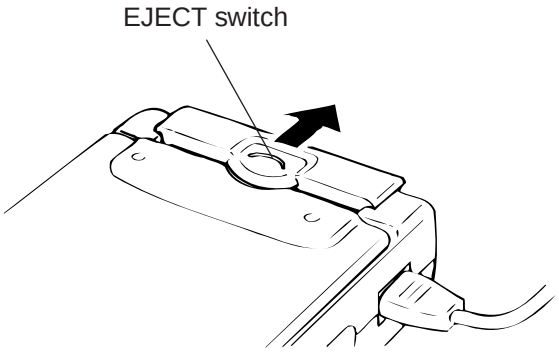


2. Mount the battery pack onto the AC adapter/charger.


EJECT switch
Chargeable battery pack
RAPID CHARGE indicator
Lights red while rapid charging is in progress.
CHARGE indicator
Lights red while charging is in progress, and turns green when charging is complete.

- Charging starts automatically when you mount the battery pack onto the AC adapter/charger.
- The amount of time it takes to achieve a full charge depends on whether the AC adapter/charger also being used to power the CASSIOPEIA by attachment with the DC power cord. An M Type battery pack (JK-210RBM) takes about five hours to reach a full charge with normal (non-rapid) charging when the CASSIOPEIA is being used to perform an operation that consumes a large amount of power.
- Avoid using the AC adapter/charger to power the CASSIOPEIA while rapid charge is in progress. Connecting the AC adapter/charger to the CASSIOPEIA can cause rapid charging to switch automatically to normal charging.

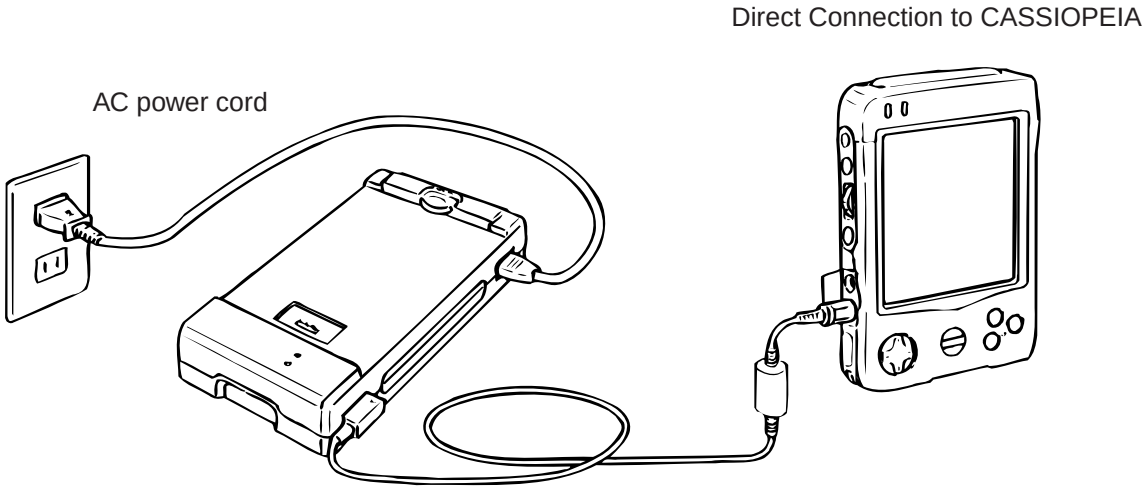
3. After charging is complete, slide the EJECT switch in the direction indicated by the arrow and remove the battery pack from the AC adapter/charger.

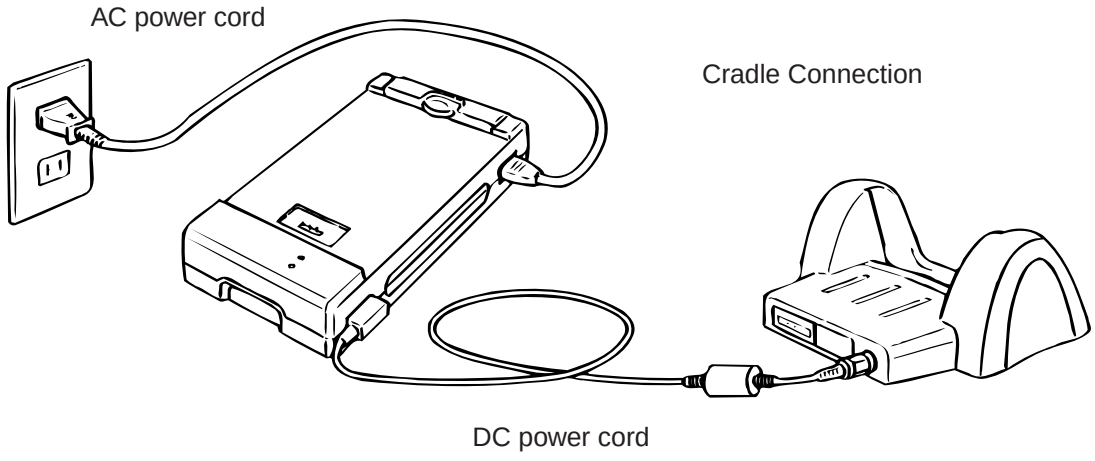


Important ⚠

- Unplug the AC cord from the wall outlet when you are not using the AC adapter/charger.
- If the indicator goes out during charging (indicating a charge error) or if a full charge is not achieved within a preset amount of time, unplug the adapter/charger from the wall outlet and stop charging.

■ To use the AC Adaptor/Charger to power the CASSIOPEIA





Using the Cradle

The cradle provides quick and easy connection between your CASSIOPEIA and a personal computer. Data passes between the CASSIOPEIA and cradle over a non-contact infrared link. CASSiOPEIA can also be powered from an AC power source when it is placed on the cradle.

Connecting the Cradle to a Computer

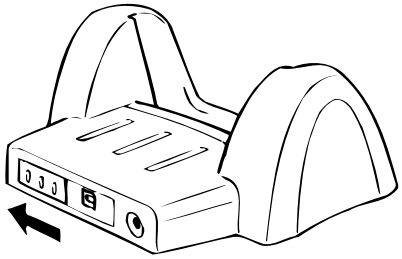
You can connect the cradle to a computer using either a serial cable or the USB cable.

Important ⚠

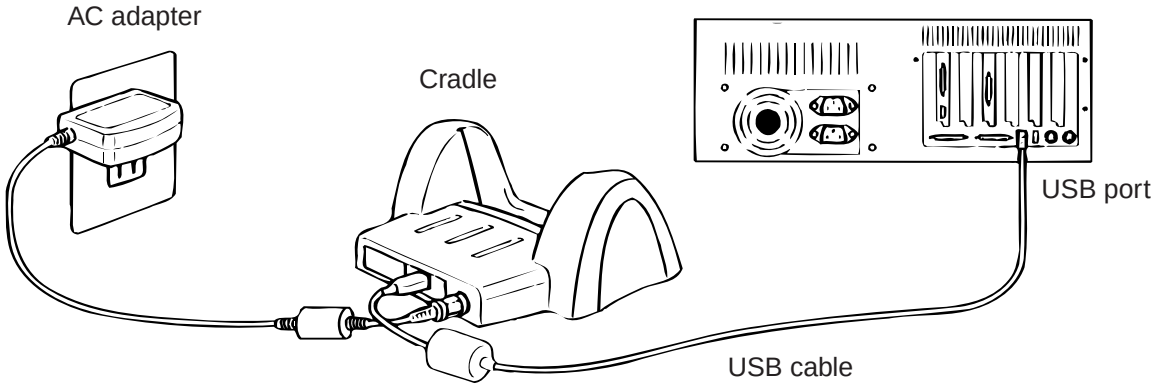
- Do not have the serial cable and USB cable connected to the cradle at the same time. When using one, be sure to unplug the other.
- Note that after connecting on your computer, you also need to make certain ActiveSync settings on your computer to enable data transfers. See the ActiveSync Help for details about setting up and using ActiveSync.
- The illustrations below are just two examples of possible connection configurations.

■ To connect using a USB cable

1. Slide the cradle's serial/USB port cover so the USB port is open.



2. Connect as illustrated below.



Note

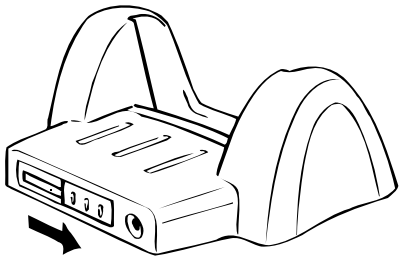
- Use of a USB connection requires installation of the USB driver on your computer.
- You can also use the AC adapter/charger in place of the AC adapter in the above configuration.

■ To connect using a 16-pin serial cable

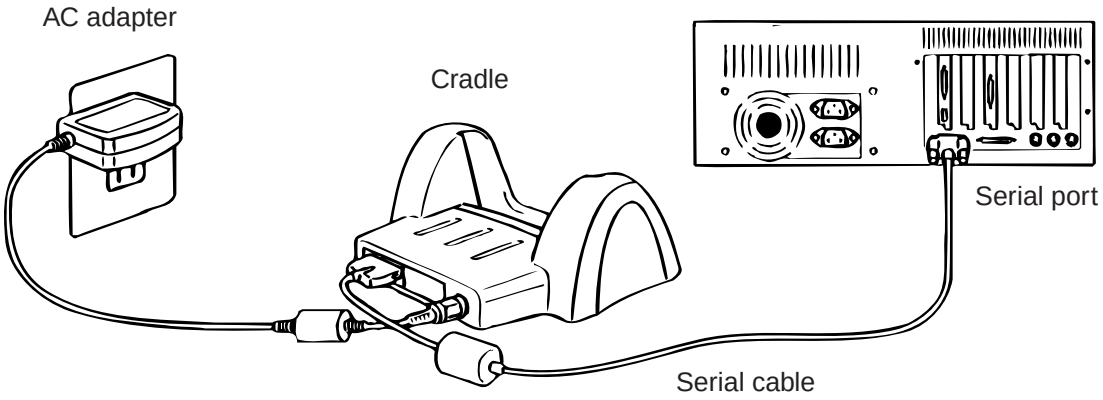
Important ⚠

Bc sure to turn off the CASSIOPEIA and your computer before connecting the cradle.

1. Slide the cradle's serial/USB port cover so the serial port is open.



2. Connect as illustrated below.



Note

- You can use the above configuration to connect directly to a computer's 9-pin serial port. If your computer has a 25-pin serial port, you will need to purchase a commercially available connector (9-pin to 25-in).
- You can also use the AC adapter/charger in place of the AC adapter it the above configuration.

■ Mounting the CASSIOPEIA Onto the Cradle

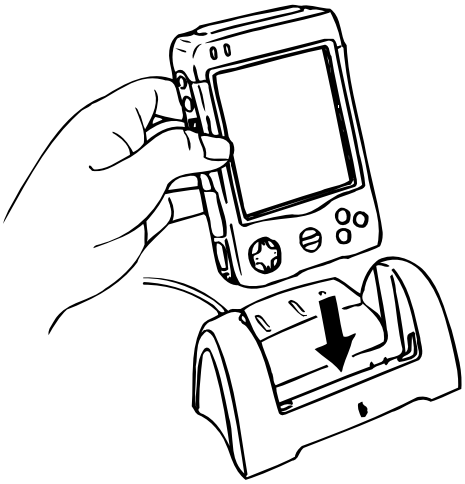
Important ⚠

Make sure that CASSIOPEIA power is turned off before you place it onto or remove it from the cradle. Use the following procedure to place the unit onto the cradle.

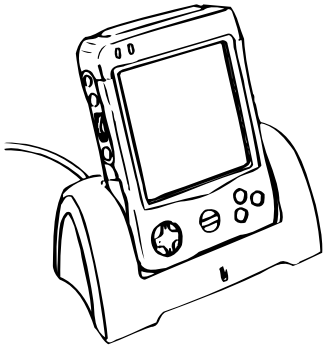
1. Place the cradle on a desk or other flat, level surface.

2. Turn off the CASSIOPEIA.

3. Place the CASSIOPEIA onto the cradle as shown in the illustration.



4. Orient the CASSIOPEIA in relation to the cradle as shown in the illustration below.

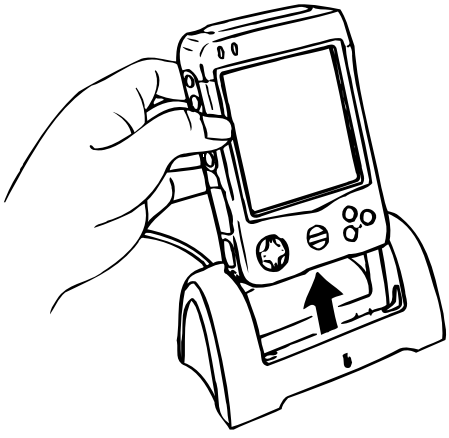


Important ⚠

- Align the CASSIOPEIA properly with the grooves and slide it into the cradle as far as it will go.

To remove the CASSIOPEIA from the cradle

Slide the CASSIOPEIA straight up from the cradle.

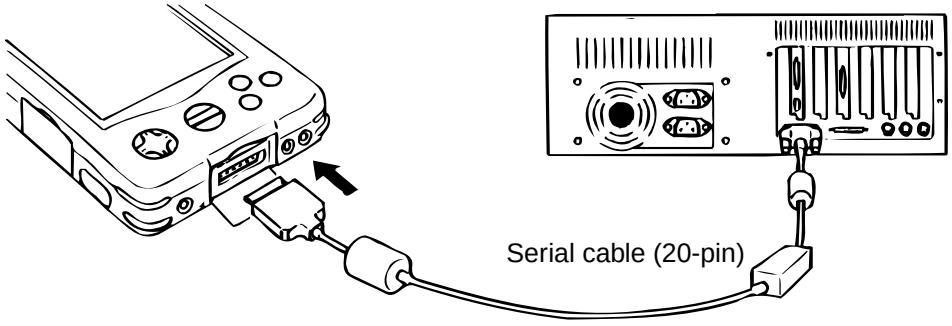


Using the Serial Cable (20-pin)

You can use the serial cable to connect the CASSIOPEIA directly to your computer.

Important ⚠

- See "Required System Configuration" on the later page for the computer system that is required for direct serial connection.
- Be sure to turn off the CASSIOPEIA and your computer before connecting the CASSIOPEIA.
- The illustration below is just one possible connection configuration. The location and layout of serial ports vary from computer to computer. See the documentation that comes with your computer for full details on connecting cables to it.
- You must have ActiveSync installed on your computer in order to exchange data with the CASSIOPEIA over a serial connection. See the Pocket PC User's Guide for information on installing and using ActiveSync.
- Connect the CASSIOPEIA to your computer as shown in the illustration below.



Using the CASSIOPEIA USB Cable

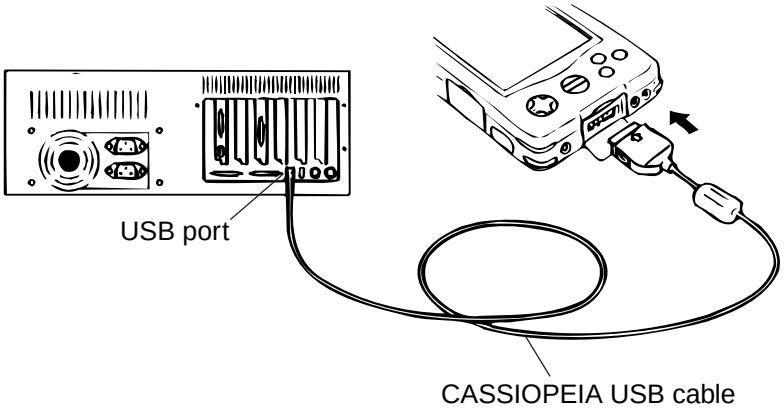
You can use the CASSIOPEIA USB cable to connect the CASSIOPEIA directly to a computer.

Important ⚠

- See "Required System Configuration" on the later page for the computer system that is required for direct USB connection.
- The illustration below is just one possible connection configuration. The location and layout of USB ports vary from computer to computer. See the documentation that comes with your computer for full details on connecting cables to it.
- You must have ActiveSync installed on your computer in order to exchange data with the CASSIOPEIA over a USB connection. See the ActiveSync Help for details about setting up and using ActiveSync.

To connect to a computer using the CASSIOPEIA USB cable

1. Plug the USB cable into the USB port of your computer.
2. Turn off your CASSIOPEIA.
3. Connect the other end of the USB cable to your CASSIOPEIA.

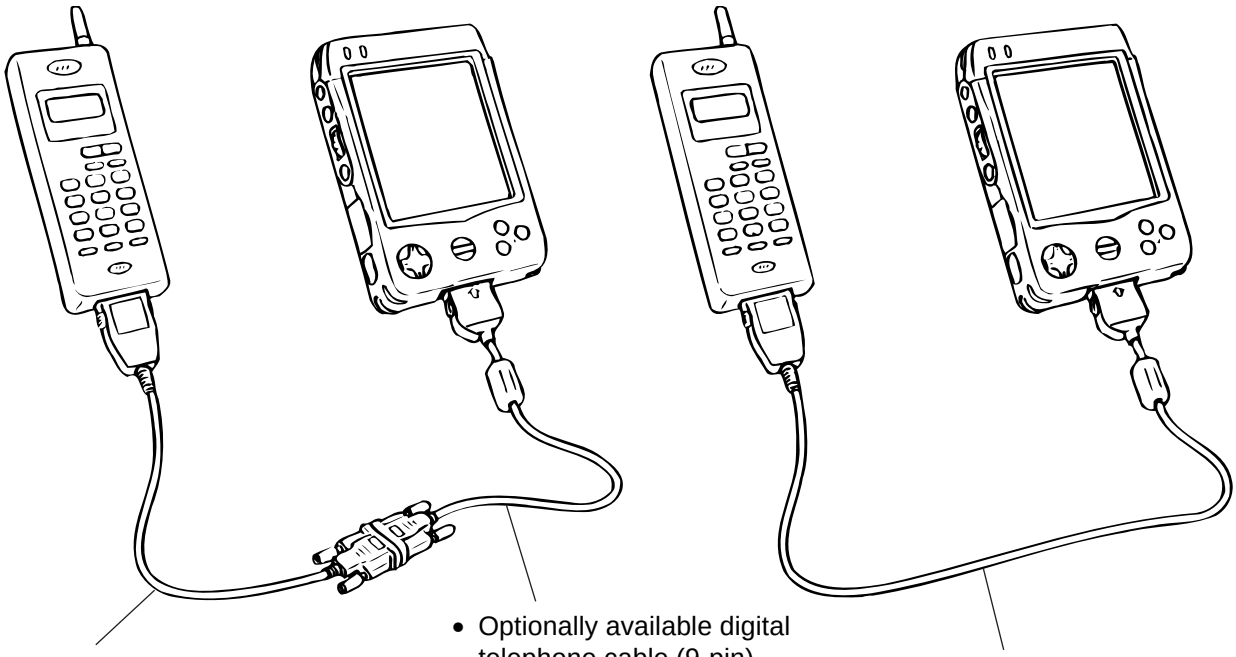


Digital Phone Connection Cable

- U.S. and Canada: Use a cdma digital phone connection cable (JK-541CA).
- For a GSM type digital phone, use a commercially available cable that is compatible with the CASSIOPEIA connector.

- After you connect the CASSIOPEIA to your digital telephone, you can dial up our Internet service provider or company server.

The following shows how to connect the CASSIOPEIA to a digital telephone.



- Separately available cable (D-sub 9-pin) for your particular telephone model, available from your phone manufacturer
- Optionally available digital telephone cable (9-pin), available from your CASiO dealer
- Commercially available GSM connecting cable

To disconnect the digital telephone cable from the CASSIOPEIA, squeeze the release buttons on the sides of the connector and unplug it.

Important ⚠

- Make sure your CASSIOPEIA is turned off before connecting the digital telephone cable.
- See the *Pocket PC User's Guide* for information about settings, operations, and precautions when connecting to a company network or the Internet.
- Make sure you are in an area where your telephone signal is strong before trying to dial in to a computer.

Data communication may not be possible if you are within an area with poor signal reception, even though it is within the service area of your telephone service provider.
Also note that noise can cause errors and make communication impossible, even though the signal is strong. If this happens, try again.

- Never unplug the cables or turn off power while data communication is in progress.
- You may not be able to establish a connection with another computer that is also using a portable telephone for communication.
- Whenever you disconnect the digital telephone cable from the CASSIOPEIA, wait at least three seconds before you connect it again. Disconnecting the cable and immediately reconnecting it again can make subsequent data communications impossible.
- Disconnect the digital telephone cable from the CASSIOPEIA when you are finished with data communication.
- See the documentation that comes with your digital telephone for information about its operations.

About Modem Cards (U.S. and Canada Only)

Use of a CompactFlash type modem card (JK-711MC56) lets you use your CASSIOPEIA to access the Internet over an analog dial-up connection. See the documentation that comes with the modem card for information about how to use it.

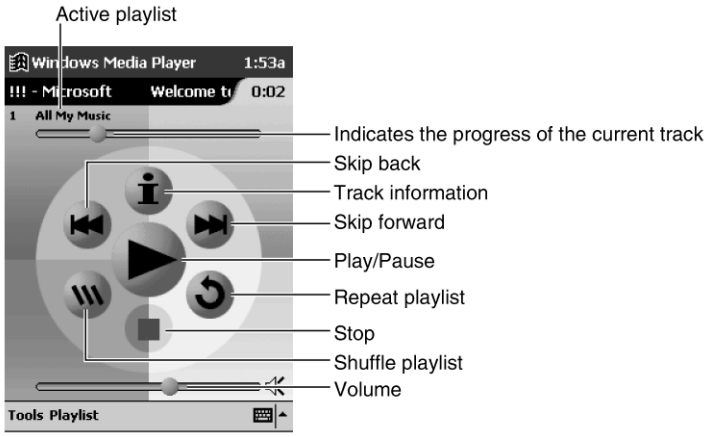
Important ⚠

Check to make sure that the battery pack is charged before using the modem card. Low battery power can cause sudden interruption of communications, unstable communications, and loss of data.

Windows Media Player for Pocket PC

Use Windows Media Player for Pocket PC to listen to digital audio files.

To switch to Windows Media Player, tap and then **Windows Media Player**.

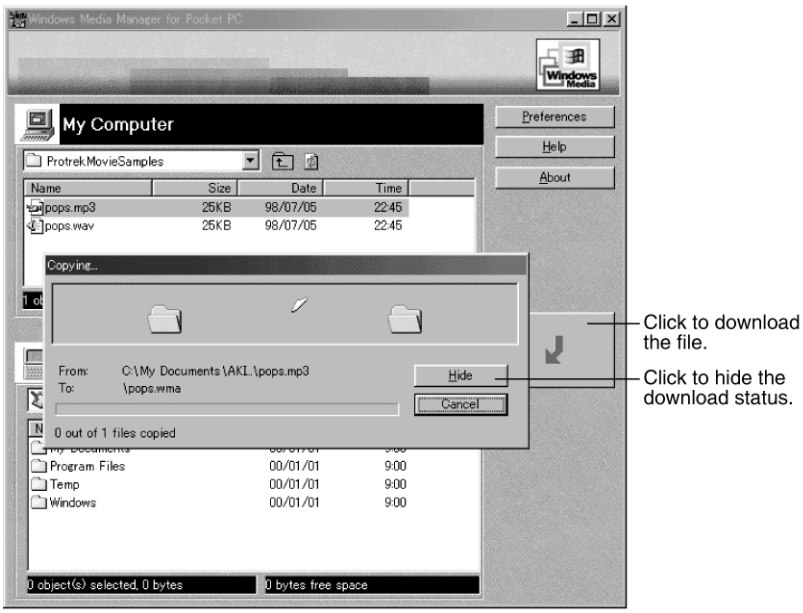


Using Windows Media Manager for Pocket PC

Use Windows Media Manager for Pocket PC on the desktop computer to create digital audio files in Windows Media format and to transfer audio content to your Pocket PC or storage card. With Windows Media format, you can create high-quality audio for your Pocket PC without using large amounts of Pocket PC memory.

You can transfer the following media formats to your Pocket PC for use with the Windows Media Player: ASF (Advanced Streaming Format), WMA (Windows Media Audio), MP3 (MPEG Audio Layer 3), and WAV (waveform).

Windows Media Manager is included in the Extras folder on the ActiveSync CD. You must install Windows Media Manager on your desktop computer to copy and convert digital audio files.



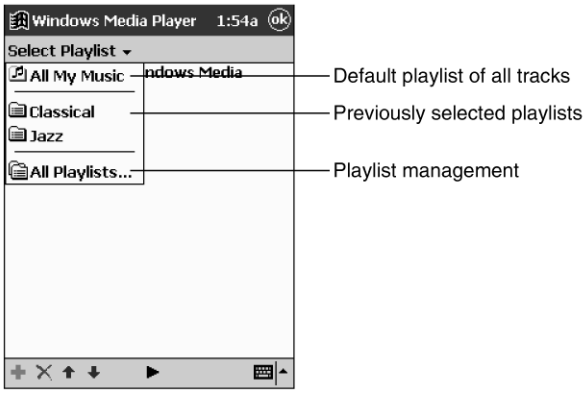
To Install Windows Media Manager to your PC, click wmmsetup.exe file Icon in the Media holder in the Extras holder, and then operate your PC according to messages on the screen. It is recommended to read readme.txt file in this Media holder. Completing above installation, Windows Media Manager for Pocket PC will be added to the start program menu of your PC.

What is Packaged Content?

Packaged content is digital music that has been encrypted for distribution to prevent unauthorized access to copyrighted content. Windows Media Player for Pocket PC cannot play packaged content without a valid license. First use Windows Media Player on the desktop computer to obtain packaged content that has a license that allows transferring the content to your Pocket PC. Then use Windows Media Manager for Pocket PC to transfer the packaged content and its license to your Pocket PC or storage card. To successfully transfer packaged content, your Pocket PC or storage card may require a hardware serial number.
You can play packaged content until the license expires. During license download, you will be informed of the terms of the license. License terms can be for an unlimited time, a set amount of time, or a set number of playbacks. A license can support content being copied to a Pocket PC or storage card an unlimited number of times or one time only. Terms are entirely dependent on the content provider.

Using the Playlist Manager

Use the playlist manager to set the track playback order. All **My Music** is the default playlist. It contains all digital audio files available for playback on your Pocket PC and storage card. To see a list of recently selected playlists, tap **Select Playlist**. To create or edit playlists, tap All Playlists.



Tap and hold a track or playlist to perform actions such as copying, moving, and deleting.
For more information on using Windows Media Player, tap and then **Help**.

For the other information on the software, refer to the Use's Guide for detail!

4-2. Initial Setup

After you first unpack your CASSIOPEIA, perform the following initial setup procedure before using it for the first time.

1. Load the main battery (rechargeable battery pack).

Important ⚠

Be sure to use the AC Adapter to charge the battery pack before doing anything else. Your CASSIOPEIA will not operate correctly if you load the backup battery before charging the battery pack.

2. Use the AC Adapter to charge the battery pack.

3. Load the backup battery.

4. Press the [Power] button.
- After a few moments the welcome screen appears.

5. Follow the steps in the Welcome Wizard.

6. When finished, you'll see the Today screen.
- See "Pocket PC Basics" at the back of *Quick Start Guide* for information about the Today screen and other Pocket PC Basics.
- You also need to install ActiveSync before you can communicate with a desktop computer.

Important ⚠

- If the touch panel does not respond when you tap it or if nothing appears on the display, try performing a full reset. If this does not restore proper operation, remove the main battery and the backup battery and wait for about five minutes. Reload the main battery first and then the backup battery, and perform the above procedure again from step 4.
- If the message "**A problem with memory contents has been found...**" appears on the display, perform a full reset.

Important ⚠

While prrforming above Initial Setup or FULL RESET operations, be sure to perform the following "Cut " and "Paste" operation. Otherwise, you can not continue to perform these operation, and the unit can not be completed Initial Setup or FULL RESET.

Tapping "Nest" in Stylus Wizard screen, pop-up menus Wizard display will appear.
Holding down "Dr. Johnson's office" or "Dental appointment" using the stylus, "Cut" display will appear.
Then, after holding down its "Cut" character, hold down item 11. After that, "Paste" display will appear.
Then, hold down "Paste" character using the stylus. Then, tap "Next".

5. RESET OPERATION and BATTERY REPLACEMENT

5-1. Reset Operation and FULL RESET

Resetting the Unit

"Reset" is similar to a computer reboot. Performing a reset deletes any data that is in the process of being input or edited, without yet being saved. Data stored in memory and all settings, however, are retained.
Perform the reset operation whenever the unit fails to operate correctly due to operational error or some other abnormality. Either of the following symptoms indicates that reset is required.

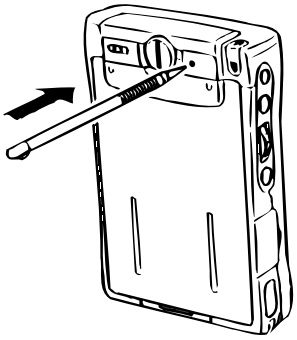
- If the unit dose not respond when you tap the screen or press a button.
- If the icon that indicates a procedure is in progress remains on the display for a long time.

Important ⚠

We strongly recommend that you back up the data in CASSIOPEIA memory, if possible, before performing a reset. Normally the reboot-type reset does not delete data in CASSIOPEIA memory. If corrupted data is discoverd, however, all data stored in memory will be deleted. Not matter what type of computing device you are using, it is always a good idea to back up memory contents periodically to protect against unexpected loss of data.

Performing a Reset

1. Use the stylus to press the RESET button.



- The unit performs a reset followed by a memory check operation.
  If no data error is found, the following two screens appear on the display in succession.
  - Startup screen
  - Desktop

2. Normal unit operation is possible after the desktop appears.

- Memory data and settings are retained when you reset the Pocket PC.

Important ⚠

If the above operation does not solve the problem, perform a full reset.
Refer to the next page concerning FULL RESET.

Memory Error Message

If the memory check operation that the unit performs when the RESET button is pressed detects a data error, the following message appears on the screen instead of the startup screen.

"A problem with memory contents has been found. Press [Action] to continue with the reset procedure, which restores normal system operation.
Note that if the system determines that user memory cannot be repaired, it will delete all user data currently in memory.

See the User's Guide for details about initializing memory."

This message indicates that the memory error is fatal and so recovery is impossible.
Press the [Action] control to execute a full reset (memory initialize), which deletes all data stored in memory.

- Pressing the [Action] control should display the Startup screen followed by the touch screen calibration screen. The remainder of this procedure indentical to the Initial Setup described in the Quick Start Guide. Perform the steps of the Initial Setup procedure.
- If pressing the [Action] control returns to the desktop without displaying the startup screen first, see the following explanation for the procedure you need to follow.

What to do if the startup screen does not appear when you press the [Action] control

Even though the desktop appears when you press the [Action] control, there is still a data error in memory and you have to perform a full reset (memory initialize). Before you do, however, there is the chance that some of the data in memory can be recalled and even transferred to a computer. Try recalling the data you need before performing the procedure described below to perform a full reset.

Important ⚠

Do not use the ActiveSync backup function to back up data to a computer when you suspect a data error. Doing so may also include the corrupted data that is causing your problem, which means the problem will reappear when you restore the data.

Full Reset (Memory Initialize)

Full reset (memory initialize) deletes all data, and resets all unit parameters to their initial defaults.
The following are conditions when you should perform a full reset.

- When you want to delete all memory data and return unit settings to their factory defaults
- When you forget your password and need to clear it
- When a data error causes operational problems
- Appearance of the message: "**A problem with memory contents has been found...**"

Performing a Full Reset

Important ⚠

- The following procedure deletes all data in memory. Be sure that data is backed up or that you no longer need it before performing the following procedure.
- If there is a CompactFlash Card in the CASSIOPEIA's slot, remove the card before performing the full reset.

1. Make sure that unit power is turned on.
2. While holding down the [Power] button, use the stylus to hold down the RESET button for about two seconds.
   - This causes the following message to appear on the display screen.

"Proceeding with this operation initializes memory. Press [Action] to proceed or [Record] to cancel."

3. Press the [Action] control.
   - This causes the following message to appear on the display screen.

"Proceeding with this operation deletes all data stored in memory. Press [Action] to proceed or [Record] to cancel."

4. Press the [Action] control again.
- This starts the full reset operation, which deletes all data in memory.
- Pressing the [Action] control displays the Startup screen. The remainder of this procedure identical to the Initial Setup described in the Quick Start Guide. Perform the steps of the Initial Setup procedure.

You can abort the full reset operation while the messages in steps 2 and 3 are on the display by pressing the [Record] button.

Errors Following a Full Reset

If errors continue to persist even after you perform a full reset, it can mean that your CASSIOPEIA is defective. Contact your original dealer or an authorized CASIO service provider to request servicing.

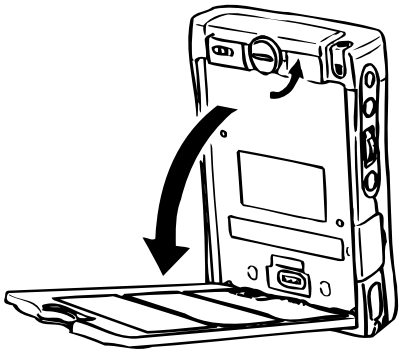
5-2. Battery Replacement

Replacing the Battery Pack (Main Battery)

1. Make sure the CASSIOPEIA is turned off.
- If power is on, press the [Power] button to turn it off.

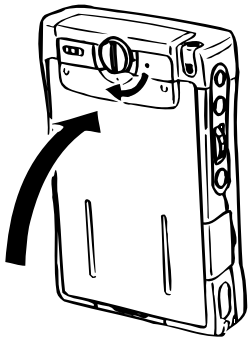
2. Turn the CASSIOPEIA over.

3. Use a coin or screwdriver to rotate the battery lock counterclockwise. Next, remove the battery pack.



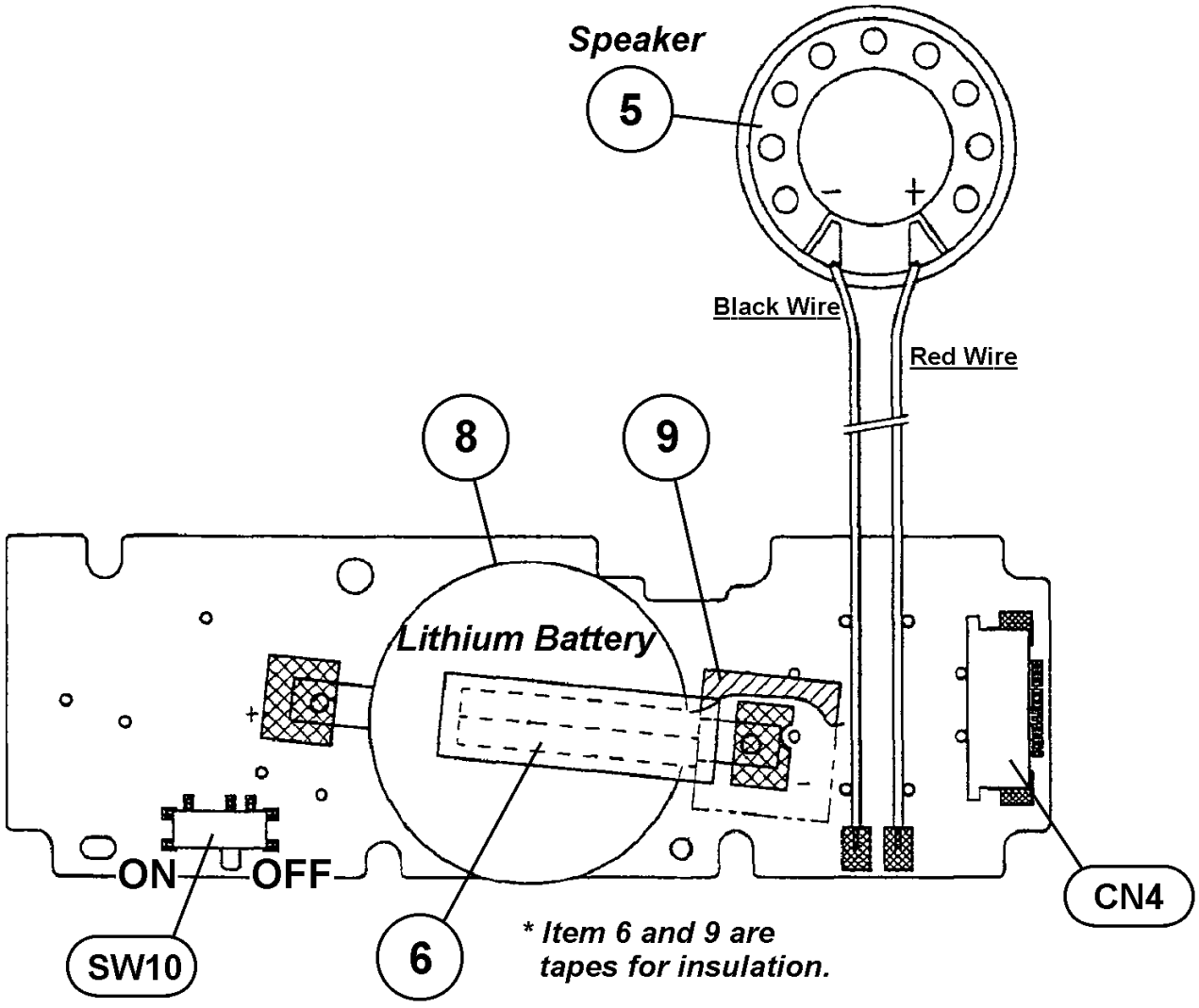
4. Insert the bottom edge of the new battery pack into the groove at the bottom of the battery compartment, and then swing the top of the battery pack into place.
- Double-check to make sure that the battery pack is oriented correctly.

5. Rotate the battery lock clockwise to secure the battery pack in place.



Memory Backup Lithium Battery Replacement

User can not replace the memory backup battery as described in MAIN FEATURES.
This Lithium battery is assembled onto Key PC Board Assembly by soldering as shown below.
Therefore, to remove or assemble this battery, use a soldering iron.
Replace this battery referring to DISASSEMBLY PROCEDURE, PARTS LIST and EXPLODED VIEW in this manual.When replacing, slide SW10 to OFF position.
Refer to page 80 and PCB VIEW in this manual.
After connecting item 33 joint cable to CN4 after replacing this battery, side SW10 to ON position.



6. DATA COMMUNICATIONS

6-1. General

Performing **Initial Setup** and **FULL RESET**, data saved in the unit will be deleted.
Performing **MEMORY BACKUP/RESTORE** and **CARD BACKUP TOOL** Operations descibed in this Chapter, save these data to PC and CF card before performing iInitial Setup and FULL RESET.
The following data communications are mainly applicable to E-125.

1. Between PC and EG-800 using Activesync 3.1 software
2. Between CF card and EG-800
3. Between Mobile phone and EG-800
4. Between two units using IrDA
5. Between notebook-sized PC and EG-800 using IrDA ports
6. Between EG-800 (lower 20 pin connector) and Modem **JK-720MA** (U.S. and Canada only)

Refer to UNPACKING and GENERAL GUIDE in this manual concerning these communications.

6-2. Connection to PC

Required System Configuration

The minimum system configuration required for running ActiveSync ® 3.1 is described below.

ActiveSync ® 3.1 System Requirements

- Microsoft ® Windows ® 2000, Windows NT ® Workstation 4.0 with **Service Pack 3 or greater**, or Windows 95/98. (U.S. version)
- Desktop computer with a Pentium processor for Windows NT (166MHz required for Windows 2000)
- Desktop computer with a 486/66 DX or higher processor (Pentium P90 recommended) for Windows 95/98
- 16MB of memory for Windows 95/98 (more memory will give improved performance) or Windows NT Workstation 4.0 (32MB recommended for Windows NT, 64MB recommended for Windows 2000)
- Hard disk drive with 10 to 50MB of available hard disk space (actual requirements will vary based on selection of features and user's current system configuration)
- Available 9 or 25-pin communications port (adapter required for 25-pin communication port), Infrared port, or USB port (available for Windows 95/98 or Windows 2000 only).
- One CD-ROM drive
- VGA graphics card or compatible video graphics adapter at 256 color or higher
- Keyboard
- Microsoft Mouse or compatible pointing device

PC Companion Device Requirements

- **Handheld PC**: Windows CE Handheld PC versions 2 and 3 with Windows CE Core System version 2.0 or greater
- **Palm-size PC**: All models and versions
- **Pocket PC**: All models and versions

Options for Windows 2000, Windows NT Workstation 4.0 or Windows 95/98

- Audio card/speakers for sound
- Microsoft Office 95 or Microsoft Office 97 or Microsoft Office 2000
- Modem for remote synchronization
- Ethernet LAN connection for remote synchronization

Requirements for Mobile Channels or Mobile Favorites Support

Microsoft Internet Explorer 4.0 or higher. Internet Explorer 5.0 is included on the CD, which requires 56-98MB of hard disk space.

Requirements for Microsoft Outlook ® 2000

Microsoft Outlook 2000 requires 153 MB of disk space for a full installation. 24 MB system RAM recommended.

Important ⚠

- When installing ActiveSync on a computer, check to make sure that the specified COM port number correctly indicates the serial port to which the cradle is connected.
- Some laptop and sub-compact computers with built-in infrared ports and modems are initially configured so the COM port is not always used as a serial port. In such a case, you must change the setting so the COM port is always used as a serial port.
  See the documentation that comes with your computer for full details on COM port numbers and settings.

6-3. Avtivesync 3.1

Refer to **5. DATA TRANSFER** in the Service Manual for E-115 concerning the installation etc. USB (Universal Serial Bus) port on PC is applicable to ActiveSync 3.1 as described in **1.MAIN FEATURES** in this manual.

6-4. BACKUP/RESTORE using ActiveSync 3.1

Refer to **5. DATA TRANSFER** in the Service Manual for E-115 also.
You can perform this operation according to this chapter as well as **BACKUP/RESTORE** between PC and E-115.
Be sure to protect the important data from data disappearance and collapse using this function.

6-5. Card Backup Tool

Card Backup Tool for EG-800 is slightly modified compared with ones for the former CASSIOPEIA Pocket PC units. Basic operations are not changed.
However, PIM (Personal Information Manager) data backup/restore function is added concerning EG-800 Card Backup Tool as shown in the later page.
PIM data indicate Contnacts, Calender and Tasks data as well as the other CASSIOPEIA unuts.

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- The operations described in this manual assume that you are already familiar with the basic operation of Windows CE. See the documentation that comes with Windows CE for full details on its operation.
- Sample displays shown in this manual may differ somewhat from the displays actually produced by the product.

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■ Introduction

Card Backup Tool lets you quickly and easily back up your CASSIOPEIA memory data to a memory card. Backed up data can be used to restore your system should it start to malfunction due to some data error.

Backed Up Data

Card Backup Tool backs up the following three types of data in CASSIOPEIA memory.

- **Files**
  Files are created using Notes, Pocket Excel, Pocket Word, and other applications and add-on programs. Files transferred from your desktop computer to the CASSIOPEIA are also backed up.
- **The Registry**
  The registry contains setup data for Windows CE and built-in applications.
- **Database Data**
  Database data is Calendar, Contacts, Tasks, and Inbox data.

Password

Backed up data can be protected by a password. By assigning a password to backed up data, you protect against unauthorized access because the data cannot be restored unless the correct password is entered first.

Time Required for Backup

Depending on how much data you are backing up (or restoring), the backup operation can take anywhere from about 10 seconds to a number of minutes. Backing up 4MB of data, for example, takes three or four minutes. To check how much data is on your system, tap , **Settings, System** tab and then **Memory**.

On the dialog that appears, tap the **Main** tab. The value under **Storage** indicates how much data is stored in memory. See the Pocket PC User's Guide and CASSIOPEIA online help for more information.

Important! ⚠

The restore operation can take a very long time if you do not have enough storage memory allocated. When this happens, quit the restore operation, increase the size of the storage memory, and then try the restore operation again.

■ Using Card Backup Tool

This section provides details about the backup and restore operations you can perform using Card Backup Tool. Be sure to read the following precautions before using Card Backup Tool for either backup or restore.

Read this first!

- Always reset your CASSIOPEIA before backing up or restoring data. Make sure you perform a reset operation. Do not perform a full reset operation! See the separate Hardware Manual for information about how to reset your CASSIOPEA.
- Be sure to power your CASSIOPEIA with the AC adapter whenever performing a backup or restore operation.
- If main battery or backup battery power is low when you start a backup or restore operation, a warning message appears and the backup or restore operation is cancelled. Before starting a backup or restore operation, charge the battery pack or load new batteries.

- Do not perform any button or screen operations on the CASSIOPEIA while a backup or restore operation is in progress. Do not touch the CASSIOPEIA at all until the backup or restore operation is complete.
- Files and other data are automatically compressed before being stored in CASSIOPEIA memory. Make sure the memory card you are using for backup has enough unused space to store the data.

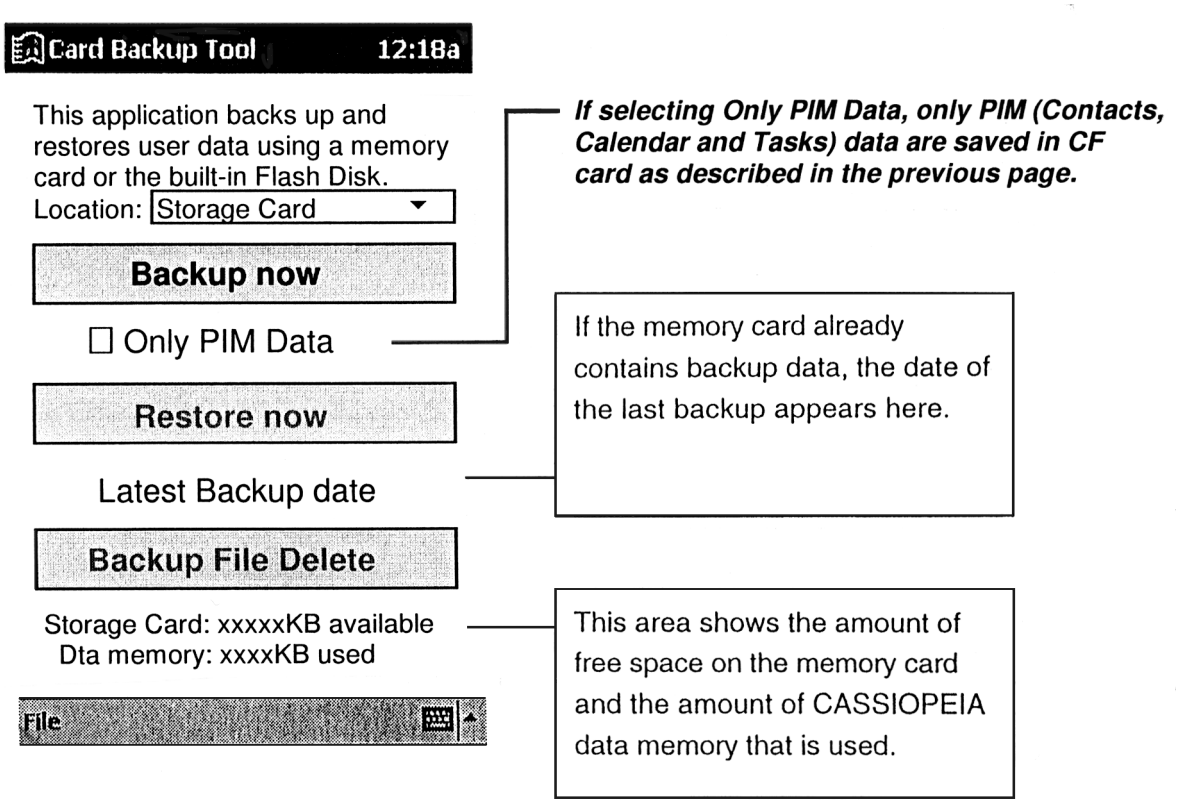
Backing Up Data

Use the following procedure to back up data. Make sure you read the precautions under "Read this first!" before starting.

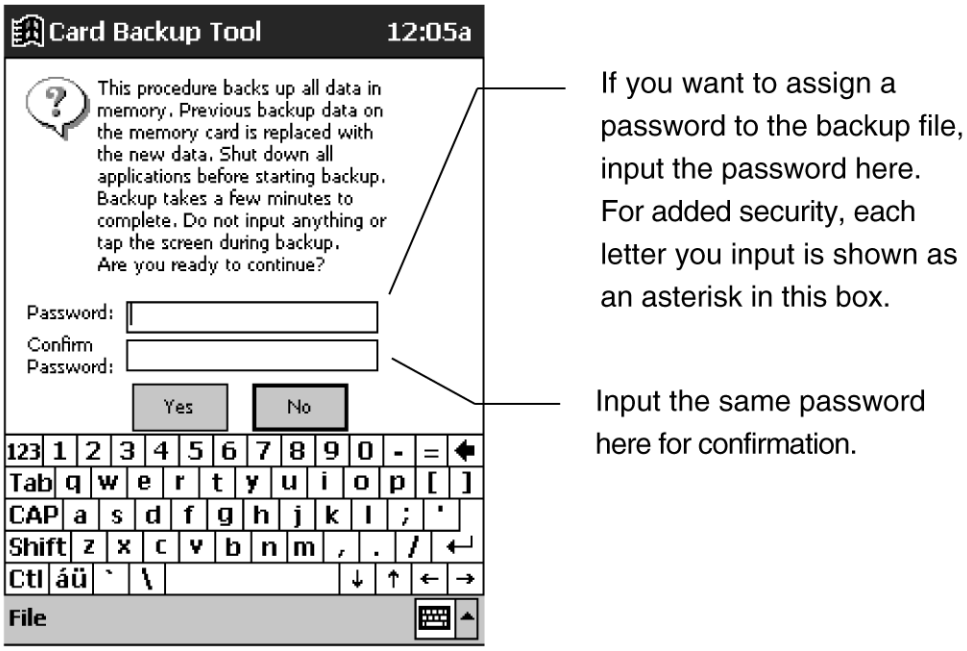
To back up data

1. Connect the AC adapter to your CASSIOPEIA.
2. Reset the CASSIOPEIA.
3. Insert a memory card with sufficient free space to store the backup data into the CompactFlash Card slot of the CASSIOPEIA.
4. Tap , **Programs, Utility,** and then **Card Backup**.

- This starts up Card Backup Tool and causes the dialog shown below to appear.


Card Backup Tool 12:18a
This application backs up and restores user data using a memory card or the built-in Flash Disk.
Location: Storage Card
Backup now
☐ Only PIM Data
Restore now
Latest Backup date
Backup File Delete
Storage Card: xxxxxKB available
Dta memory: xxxxKB used
File
If selecting Only PIM Data, only PIM (Contacts, Calendar and Tasks) data are saved in CF card as described in the previous page.
If the memory card already contains backup data, the date of the last backup appears here.
This area shows the amount of free space on the memory card and the amount of CASSIOPEIA data memory that is used.

5. Tap **Backup now**.
- This causes the dialog shown below to appear.


Card Backup Tool 12:05a
This procedure backs up all data in memory. Previous backup data on the memory card is replaced with the new data. Shut down all applications before starting backup. Backup takes a few minutes to complete. Do not input anything or tap the screen during backup. Are you ready to continue?
Password:
Confirm Password:
Yes
No
File
If you want to assign a password to the backup file, input the password here. For added security, each letter you input is shown as an asterisk in this box.
Input the same password here for confirmation.

- If you do not wish to assign a password, go to step 6 without inputting anything.

6. Tap **Yes** to start the backup or **No** to close the dialog without backing up anything.
- The "Backup in Progress" dialog appears while the backup operation is being performed.
- The message "Backup complete!" appears on the display after the backup operation is complete.

7. After backup is complete, tap **OK** to quit Card Backup Tool.

Note

If the backup operation is interrupted or unsuccessful for any reason and there is a previous backup file on the memory card you are using, the previous file remains intact on the card.

To interrupt a backup operation

1. Tap the **Cancel** button on the message box that is on the screen while a backup operation is in progress.
- This causes the message "Do you really want to cancel?" to appear.

2. Tap **Yes** to cancel the backup operation or **No** to resume it.

Quitting Card Backup Tool

- Tapping the **OK** button on the dialog box that appears at the end of a backup operation automatically quits Card Backup Tool.
- To quit Card Backup Tool without performing a backup operation, tap the **Cancel** button.

Restoring Data

The following applies whenever you perform a restore operation.
- If the same file or registry data exists in both CASSIOPEIA memory and on the memory card, the data in CASSIOPEIA memory is overwritten with the data on the memory card.
- Any files or registry data in CASSIOPEIA memory that is not on the memory card is left as-is.
- Calendar, Contacts, Tasks, and Inbox data in CASSIOPEIA memory is all overwritten with the corresponding data from the memory card.

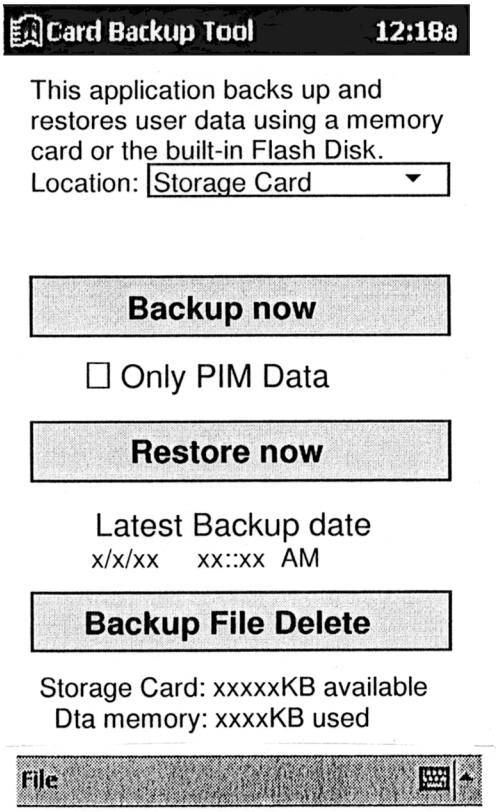
- To return CASSIOPEIA to the exact status it was when you backed up the data, perform a full reset before restoring the data. See the separate Hardware Manual for information about the full reset.

Use the following procedure to restore data. Make sure you read the precautions under "Read this first!" on the previous page before starting.

To restore data

1. Connect the AC adapter to your CASSIOPEIA.
2. Reset the CASSIOPEIA.
3. Insert the memory card that contains the data you want to restore into the CompactFlash Card slot of the CASSIOPEIA.
4. Tap , **Programs**, **Utility**, and then **Card Backup**.

- This starts up Card Backup Tool and causes the dialog shown below to appear.


Card Backup Tool 12:18a
This application backs up and restores user data using a memory card or the built-in Flash Disk.
Location: Storage Card
Backup now
Only PIM Data
Restore now
Latest Backup date
x/x/xx xx::xx AM
Backup File Delete
Storage Card: xxxxxKB available
Dta memory: xxxxKB used
File

Note:
Data except PIM data are restored even if selecting "Only PIM Data" before restoring. If you want to retore only PIM data, be sure to select "Only PIM data" before Backup.

Deleting a Backup File

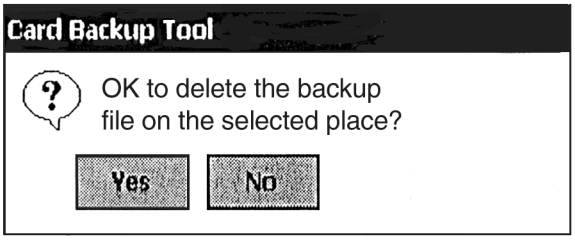
You can use the following procedure to delete the backup files you created using Card Backup Tool. Delete a file when you no longer need it, when you want to free up space on a memory card, etc.

To delete a backup file

1. Insert the memory card that contains the backup file you want to delete into the CompactFlash Card slot of the CASSIOPEIA.

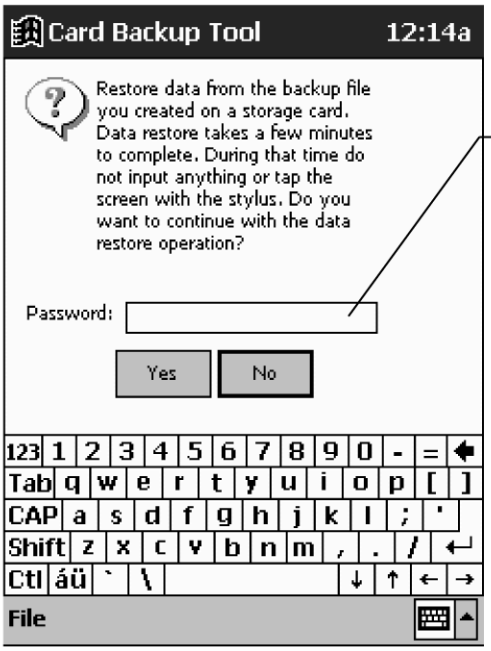
2. Tap , **Programs**, **Utility**, and then **Card Backup**.
- This starts up Card Backup Tool.

3. Tap **Backup File Delete**.
- This causes the dialog shown below to appear.



4. Tap **Yes** to delete the backup file or **No** to close the dialog without deleting anything.

5. Tap **Restore now**.
- This causes the dialog shown below to appear.


Card Backup Tool 12:14a
Restore data from the backup file you created on a storage card. Data restore takes a few minutes to complete. During that time do not input anything or tap the screen with the stylus. Do you want to continue with the data restore operation?
Password:
Yes
No
File

If the data is protected by a password, input the password here. If the data is not password protected, go to step 6 without inputting anything here.

6. Tap **Yes** to start the restore or **No** to close the dialog without restoring anything.
- The "Restore in Progress" dialog appears while the restore operation is being performed.
- The message "Restore complete!" appears on the display after the restore operation is complete.

7. After restore is complete, tap **OK** to quit Card Backup Tool.

8. Reset your CASSIOPEIA again.

6-6. Mobile communication

Refer to page 23 in this manual.
Supports WAP, SMS, E-mail and Internet
when used in combination with a GSM mobile phone.

MTDS MTDS Web Site

*Internet access requires an account with an Internet service provider.

note
Communication systems differ from country-to-country. Contact your local CASIO retailer for full details about communications that are supported in your area.

Pocket Internet Explorer

Mobile E-Mailer

Mobile E-mailer 4:09p
Send
Subj: Re: Launch of New Cabi...
To: <anderson@xxx.yyy.zzz...
We hereby would like to invite you and your family to the grand launch of the "Horizon", the new cabin cruiser for which everyone has been waiting.
The event will be marked by a grand launch ceremony attended by our CEO, COO and other executives, as well as representatives from Blue Industries, the builder of the new Horizon. Other participants in this memorable event will
New Edit

Mail Setup Tool

Mail Setup Tool is a special application that simplifies troublesome settings you need to make in order to send and receive e-mail on your Pocket PC.

Bonus Software

Mail Setup Manager for CASSIOPEIA

This application lets you copy your computer's e-mail account settings to your Pocket PC for automatic configuration of the Pocket PC e-mail settings.

Bonus Software

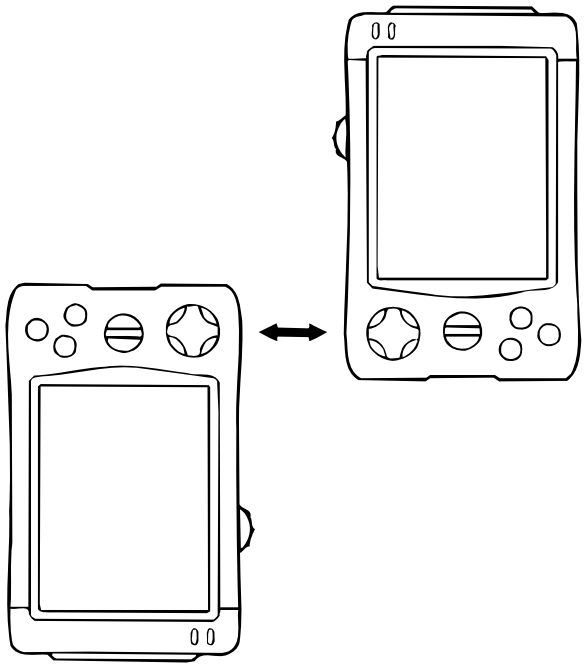
6-7. Infrared Communication

Transfer Items Using Infrared

Using infrared (IR), you can send and receive information, such as contacts and appointments, between two Windows-powered Pocket PCs.

To send information

1. Switch to the program where you created the item you want to send and locate the item in the list. If you want to send more than one item, drag the stylus across the items you want to send.
2. Align the IR ports so that they are unobstructed and within a close range.



- The two infrared ports should be within about 30cm from each other.

3. Tap and hold the item, and tap **Send via Infrared** on the pop-up menu.

   You can also send items, but not folders, from File Explorer. Tap and hold the item you want to send, and then tap **Send via Infrared** on the pop-up menu.

To receive information

1. Align the IR ports so that they are unobstructed and within a close range.
2. Tap , **Programs**, and then **Infrared Receive**.

   You can also receive items from Tasks, Contacts, Calendar, and Notes by tapping **Tools** and then **Receive via Infrared** in list view.

7. ADUSTMENT

There are two kinds of adjustments concerning EG-800.
Refer to 8-4-2-7. Color Bar Check (including a display adjustment) and 8-4-2-8. Setting (Adjusting) DC voltage to AD converter in OPERATION CHECK in this mamual.

8. OPERATION CHECK

8-1. Preparation

1. EG-800 (Prepare another units to perform IrDA communication check except the checking unit.)
2. Compact Flash Memory Card
3. Rechargeable battery pack JK-210RBM etc. (Refer to **UNPACKING**.)
4. AC adapter (AD-C59200U), or both AC adapter (AD-C59200G) and AC power cord (CBL-K799-AC-EU etc.) (Refer to **UNPACKING**.)
5. Cradle with RS-232C Cable JK-550CR (Refer to **UNPACKING**.)
6. PC installed ActiveSync 3.1
7. Diagnostic program files for EG-800 : **diag.exe** and diagboot.exe
   (This file name "**diag.exe**" is the same as ones for E-100/ E-105/ E-115/ EM-500/ E-125 etc. Take care not to confuse.)
9. Ordinary stereo earphone (16Ω)
10. Stereo Earphone with Remote Control JK-840HE
11. One DC Power Supply Stabilizers

NOTES:

* Be sure to make back-up copies of all data in the unit before repair using BACKUP/ RESTORE function in ActiveSync 3.1 software because **FULL RESET** must be performed to finish or abort this operation check.
  Diagnostic program file will be saved in D-RAM assembled onto the main PC board.
  Therefore, performing **FULL RESET** after this check, this program should be deleted.
  These program files (**diag.exe/ diagboot.exe/ CASIO_JXdiag.exe**) will be supplied along with the Service Manual for EG-800.
* The unit may be locked during the installation, this check or the other operation.
  If this lock occur, try to perform **RESET** or **FULL RESET** operation.

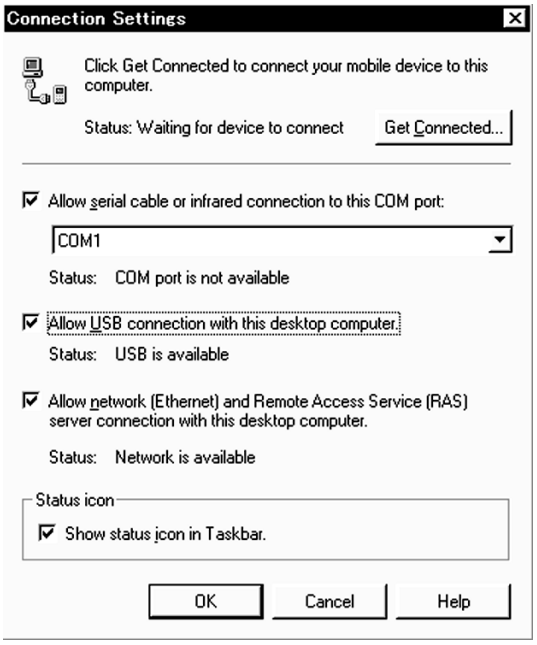
8-2. How to install the diagnostic program

There are two ways to install the diagnostic program.

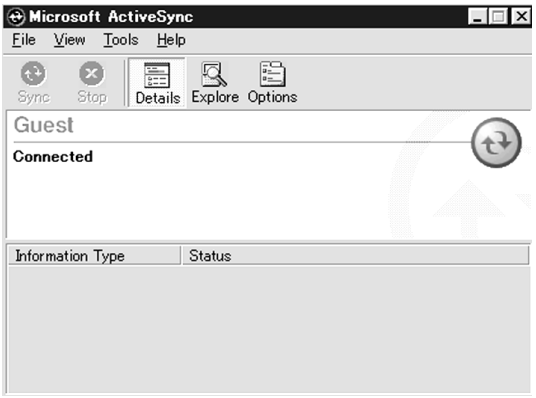
8-2-1. Installation in CF Card and D-RAM at the same time

Using CF card installed the diagnostic program, **OPERATION CHECK** can be performed without PC and the cradle after installation.
To make this CF card installed the diagnostic program, at first, it is necessary to install the diagnostic program to CF card according to the following procedure.

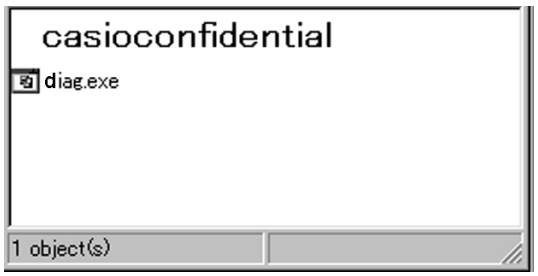
1. Insert a CF card into Card slot of the unit.
   Before inserting CF card, be sure to slide CARD LOCK switch to **Free** position.
2. Connect a cradle and PC installed ActiveSync 3.1.
3. Set the unit to this cradle. And then, open ActiveSync 3.1.
4. Selecting **File**, then **Connection Settings...**, the dialog box shown to the right appears.
   It is recommended that you enter "**V**" marks in the four squires in the right dialog box to be able to use USB, RS-232C COM port etc on PC.
5. After doing so, perform "**Get Connected...**" procedure. "**Get Connected...**" procedure may automatically start.
6. You had better choose "**No**" for Set Up a Partnership.
7. After that, this connection procedure will be completed.


Connection Settings
Click Get Connected to connect your mobile device to this computer.
Status: Waiting for device to connect
Get Connected...
Allow serial cable or infrared connection to this COM port:
COM1
Status: COM port is not available
Allow USB connection with this desktop computer.
Status: USB is available
Allow network (Ethernet) and Remote Access Service (RAS) server connection with this desktop computer.
Status: Network is available
Status icon
Show status icon in Taskbar.
OK
Cancel
Help

8. After this procedure is completed, the display shown to the right appears.
9. After clicking **Explore** icon in the right dialog box, click **My Pocket PC** icon.
10. Doing so, **Storage Card** holder icon will appears. "Storage Card" holder indicates CF card. If CF card is not inserted into the slot, this holder will not appear.
11. After clicking this icon, make a new holder named **jx590diag**.
12. Make a new holder named **casioconfidential** in **jx590diag** holder.
    Perform these spellings precisely.
    Otherwise, the installation of the diagnostic program can not be performed.
13. Enter **diag.exe** file in this **casioconfidential** holder.
    Total directory is as follows;
    Storage Card>jx590diag>casioconfidential>diag.exe
14. Doing so, the installation of the diagnostic program to CF card and D-RAM in the unit starts automatically.
15. While performing this installation, the display shown to the right will appear.



16. Completing this installation, the display shown to the right will appear.
    * Once the diagnostic program is installed in CF card and D-RAM in the unit, this program is not deleted even if **RESET** operation is performed.
17. After making **diag** holder in **Storage Card** holder, enter **diagboot.exe** file into this **diag** holder. Total directory is as follows;
    Storage Card>diag>diagboot.exe



Note: diagboot.exe file is needed to make the diagnostic program development more easier.
This file may be applicable to all units adopted CF card in future.
If diagboot.exe file is not entered in diag holder, the operation check will not be booted when pressing Contacts button while holding Power button.

18. Performing the following operation with the unit, confirm that the diagnostic program has been installed in CF card according to the following procedure.
    Tapping **Start, Programs, File Explore, My documents, My Device, Storage Card, jx590diag,** and then **casioconfidential** holder using a stylus, **diag** icon will appear.
    If **diag** icon appears, the diagnostic program is installed in CF card.
    After tapping **casioconfidential**, tap **Storage Card** holder.
    Then, confirm that there is a **diagboot** icon in **diag** holder.
    Tapping above **diag** icon, **Main Menu** for this Operation Check display appears.
    Operation Check can be booted using above operation.

8-2-2. Direct Installation in Only D-RAM in the unit without CF card

Using the following procedure, you can directly install the diagnostic program in D-RAM in the unit without CF card.

1. Perform **2~9** in the procedure of **8-2-1**.
2. Clicking **Windows** holder in ActiveSync 3.1 program, open this holder.
3. Enter both **CASIO_JXdiag.exe** and **diagboot.exe** files into this holder.
4. Doing so, the installation of the diagnostic program to D-RAM in the unit starts automatically.

* Once the diagnostic program is installed in D-RAM in the unit, this program is not deleted even if **RESET** operation is performed.

5. Performing the following operation with the unit, confirm that the diagnostic program has been installed in D-RAM in the unit.
   Tapping **Start, Programs, File Explore, My documents, My Device,** and then **Windows** holder using a stylus, **CASIO_JXdiag** icon will appear in Windows holder.
   If **CASIO_JXdiag** icon appears, the diagnostic program is installed in D-RAM.
   Tapping this **CASIO_JXdiag** icon, **Main Menu** for this Operation Check display appears.

Operation Check can be booted using above operation also.

8-3. How to delete the diagnostic program

If necessary, delete the diagnostic program in CF card and D-RAM in the unit using the following procedure.

8-3-1. How to delete the diagnostic program in CF card

1. After connecting the unit set CF card and PC using ActiveSync 3.1, be sure to delete **both diag.exe** file in **casioconfidential** holder and **diagboot.exe** file in **diag** holder.
   Never delete **jx590diag, casioconfidential** or **diag** holder. Be sure to delete **exe** files firstly.
   Refer to **8-2-1** concerning above connection for detail.
2. Performing the following operation with the unit, confirm that the diagnostic program has been deleted in CF card according to the following procedure.
   Tapping **Start**, **Programs, File Explore, My documents, My Device, Storage Card, jx590diag,** and then **casioconfidential** using a stylus, **diag** icon will disappear.
   If diag icon disappears, the diagnostic program in CF card is deleted.
   Confirm that **diagboot** icon in **diag** holder with the unit disappears also.

8-3-2. How to delete the diagnostic program in D-RAM in the unit

There are two ways to delete the diagnostic program in D-RAM.

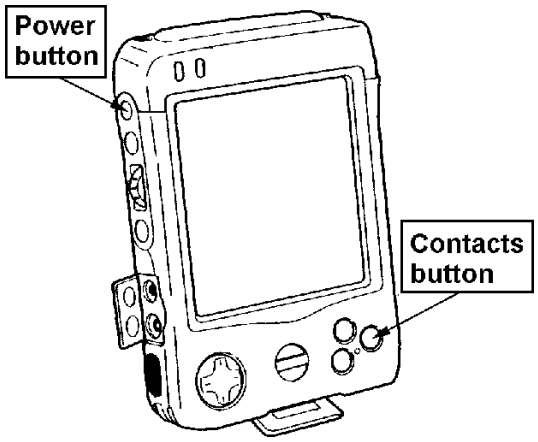
1. After connecting the unit and PC using ActiveSync 3.1, delete **CASIO_JXdiag.exe** file in **Windows** holder.
   Refer to **8-2-1** concerning above connection for detail.
2. Perform **FULL RESET** for the unit.
   To perform **FULL RESET**, press **RESET** button while holding down **Power** button, then operate the unit according to the messages on the screen.

* Performing the following operation with the unit, confirm that the diagnostic program has been deleted in D-RAM in the unit.
   Tapping **Start, Programs, File Explore, My documents, My Device**, and then **Windows** using a stylus, **CASIO_JXdiag** icon will disappear in Windows holder.
   If **CASIO_JXdiag** icon disappears, the diagnostic program in D-RAM is deleted.

8-4. Operation Check

8-4-1. How to enter into Operation Check Mode

It is recommended to perform **FULL RESET** with the unit to delete the data saved in D-RAM before this check.
To enter into this check Mode, perform the operation described in item **18** of **8-2-1** or item **7** of **8-2-2** after installation of diagnostic program.
Or, after the installation of diagnostic program by 8-2-1, press **Contacts** button over 3 seconds while holding down **Power** button until below Operation Check **Main Menu** appears.
If missed, try again.
After performing one of the operations described above, the following **Main Menu** display for Operation Check appears on the screen.



**** Main Menu ****

1 DISPLAY
2 TOUCH PANEL
3 MEMORY
4 SERIAL
5 POWER CONTROL
6 AUDIO
7 Others
8 COLOR BAR
9 VOLTAGE Write

AD Code = #####
CPROG Rev. 0.95 for Jx-590/597

Note: Generally, diagnostic program revision No. may be changed without prior notice in future due to mass production convenience.

Once the diagnostic program is installed to the unit, this program will be not deleted even if removing CF card because this program has been installed in D-RAM assembled onto the main PC Board.

8-4-2. Operation Check

If the unit is locked during this check, enter into this check mode again after performing RESET or FULL RESET operation.

8-4-2-1. Display Check

1. Tapping above **1 DISPLAY** on the screen using a stylus, the red screen appears.
2. Tapping the screen, the green screen appears.
3. Tapping the screen again, the blue screen appears.
4. Tapping the screen again, the white frame display appears.
5. Tapping the screen again, the black frame display appears.
6. Tapping the screen again, no display appears.
7. Tapping the screen again, **Main Menu** display appears.

8-4-2-2. Touch Panel Check

1. Tapping above **2 TOUCH PANEL** on the screen using a stylus, the following Touch Panel Check Menu appears.

   **** Touch Panel ****

   1 Case
   2 Points
   3 Cross

2. Tapping **1 Case, "Case ----→ OK"** display appears.
   Pressing **Action Control** button, display Touch Panel Check Menu again.
   Generally speaking, pressing **Action Control** button, prior Menu or Display can be recovered during **Operation Check**.
3. Tapping **2 Points**, four cross marks appears near four corners in the screen.
   If succeeded to tap the center of the cross mark, its cross mark will disappear.
   Tap the centers of these cross marks until all cross marks disappear.
   After that, "**Touch Panel----→OK"** display appears.
4. Pressing **Action Control** button twice, **Main Menu** display appears.

* If performing **2 Points** check, it is unnecessary to perform **3 Cross** check.

8-4-2-3. Memory Check

1. Tapping **3 MEMORY**, the following Memory Check Menu display appears.

   **** MEMORY ****

   1 ROM CHECK SUM(32MByte)
   1' ROM CHECK SUM(16MByte)
   2 ROM BUS SUM(32MByte)
   2' ROM BUS SUM(16MByte)
   3 ROM TYPE
   4 RAM TEST
   5 RAM LOOP
   6 RAM R/W TEST

2. Tapping **1 ROM CHECK SUM(32MByte)**, the following display appears.

   **** ROM CHECK SUM ****
   base addr. Sum value
   SUM 1 (bf000000) = xxxx
   SUM 2 (bf000002) = xxxx

   FLASH Write --> OK

   ROM CHECK SUM ... end

   Above hexadecimal digits (numbers) will be modified without prior notice in response to the modifications for OS etc..
   Pressing **Action Control** button, Memory Check Menu display appears again.

3. Tapping **3 ROM TYPE**, the following display appears.

   **** ROM TYPE ****

   Flash ROM

   ROM Type CHECK ... end

   Mask ROM may appear instead of above **Flash ROM**.
   Pressing **Action Control** button, Memory Check Menu display appears again.

4. Tapping **4 RAM TEST**, the following display appears.
   The other displays may appear.

   **** RAM CHECK ****

   - RAM CHK OK -

   Pressing **Action Control** button, Memory Check Menu display appears again.
5. Tapping **6 RAM R/W TEST**, the following display appears.

   **** RAM CHECK ****

   - RAM DATA WRITE -
   Write ... end ActionKey PUSH!

6. Pressing **Action Control** button according to above message, the following display appears.

   **** RAM CHECK ****

   - RAM DATA WRITE -
   Write ... end ActionKey PUSH

   -- RAM DATA READ --

   -- RAM CHK OK --

   Pressing **Action Control** button twice, **Main Menu** display appears again.

8-4-2-4. Serial ports Check (Communication Check)

Perform this check after aligning the IR ports so that two units are unobstructed and within a close range (within 30 cm).

Try to communicate with PC using ActiveSync 3.1 after connecting the unit to PC using the cradle concerning USB and RS232C checks.
Because, special jigs are needed to perform USB/ RS-232C checks by this diagnostic program.

1. Tapping **4 SERIAL**, the following Serial port Check Menu display appears.

   **** Serial ****

   1 Loop Back <RS232C Ck>
   2 Send / Receive <RS232C Ck>
   3 Interactive <IrDA Ck>
   4 Send / Receive <IrDA Ck>
   5 Loop Back2
   6 Interactive <FIR Ck>
   7 Send / Receive <FIR Ck>
   8 Send / Receive <FIR Ck>
   9 USB Check

2. Prepare another unit to perform IrDA communication check.
   Display Serial port Check Menu with another unit as well as the checking unit.

3. Tapping **3 Interactive <IrDA Ck>** with both units, the following displays appear.

   Ready

4. Tapping the checking unit's screen, the following display appears with this unit.

   Ready
   OK
   Ready

   On the other hand, the following display appears with another unit.

   Ready
   Ready

5. Tapping another unit's screen, the following display appears.
   Ready
   Ready
   OK
   Ready
   On the other hand, the following display appears with checking unit.
   Ready
   OK
   Ready
   Ready

6. Pressing **Action** button with both units, Serial port Check Menu display appears again.
7. Tapping **7 Send / Receive <FIR Ck>** with both unit, the following display appears.
   <Fast Infrared SEND / RECEIVE>

   1 Send data (4Mbps)
   2 Receive data (4Mbps)

8. Tap **2 Receive data (4Mbps)** with another unit, then tap **1 Send data (4Mbps)** with the checking unit. Doing so, the following display appears.
   In case of the checking unit;
   <Send mode>
   In case of another unit;
   <Receive mode>
   HHHHHHHHHHHHHHHHHH
   HHHHHHHHHH.....
   The letter "**H**" will continue to appear one after another.

9. To stop this data communication, press **Action Control** buttons with both units.

10. Exchanging the checking unit for another unit, perform operations of above 6~8.
    Press **Action Control** buttons few times with both units to display **Main Menu**.
    Turn off another unit power after performing **FULL RESET**.

8-4-2-5. Audio Check

1. Tapping 6 AUDIO, the following Audio check Menu appears.
   **** Audio ****

   1 0.5kHz
   2 1kHz
   3 2kHz

   4 LR-Channel
   5 Record

2. Tapping **1 0.5kHz**, 0.5kHz sound is emitted.
3. Tapping **2 1kHz** after pressing **Action Control** button, 1 kHz sound is emitted.
4. Tapping **3 2kHz** after pressing **Action Control** button, 2 kHz sound is emitted.
   Press Action Control button again.
5. After setting a stereo earphone to the unit, tap **4 LR-Channel**.
   Doing so, the following sound can be heard from its earphone with stereo.
   "**Right channel**" from the right
   "**Left channel**" from the left

   Press **Action Control** button again.

8-4-2-6. Others Check

1. Tapping **7 Others**, the following Others check Menu display appears.

   **** Others ****

   1 Switch
   2 Keyboard RAMDOM
   3 Disp Loop
   4 BackLight
   5 Compact Flash (CDs, CDOR)

2. Tapping **1 Switch**, the following display appears and Red light is flickered from the right LED.
   For example,

VDET1B	**OFF**
VDET2	**OFF**
VDET3	**OFF**
VDETS	**OFF**
VDETCF	**OFF**
AC Adapter	**USED**
Cover	**CLOSED**
Charge	**ON**
Ir WakeUP	**OFF**
AD Remocon	**OFF**
Audio Jack	**OFF**

3. Removing the rechargeable battery, **COVER** will become **OPEN**.
   Set its rechargeable battery to the unit again.
4. Removing AC Adapter, **AC Adapter** will become **NOT USED**.
   Connect **AC Adapter** to the unit again.
5. Connect a ordinary earphone to the unit.
   Doing so, Audio Jack will become **ON**.
   Remove this earphone.
   After connecting a stereo earphone with remote control JK-840HE to the unit, pressing **PLAY**, **FF** or **RWD** button, **AD Remocon** will become **PLAY, FF, RWD** respectively.
   Remove this remote control earphone.
6. After connecting an AC adapter to the cradle, setting the unit onto its cradle, **Ir WakeUP** become **ON**.
7. Inserting CF card into the slot of the unit, **VDETCF** will become **ON**.
8. Pressing **Action Control** button, Others check Menu display appears again.
9. Tapping **2 Keyboard RANDOM**, the following display appears.

   **** Keyboard Random ****

   Pressing any button except power button, the key name corresponded to the pressed button appears on the screen.
   Pressing **Power** button finally, Others check Menu display appears again.
10. Tapping **4 BackLight**, for example, the following display appears.

    197

    Another number may appear.
11. While holding down the downward key in the cursor button, display on the screen becomes dimmer, then lighter suddenly.
    Pressing **Action Control** button twice, **Main Menu** appear.

8-4-2-7. Color Bar Check (including a display adjustment)

1. Tapping **8 COLOR BAR**, the following Color Bar check Menu display appears.

**** COLOR BAR ****

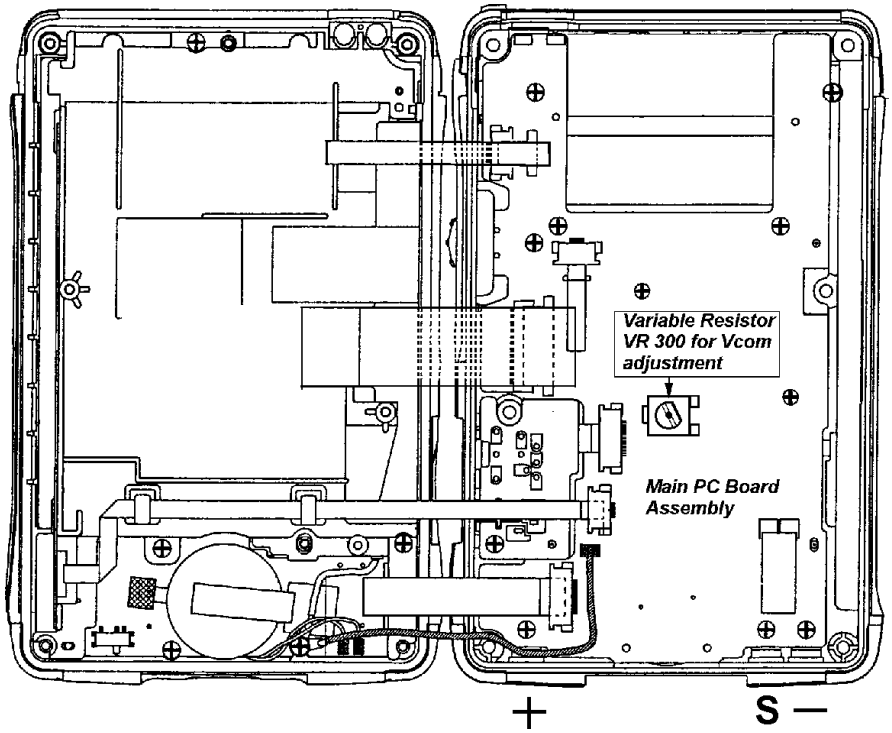
1 Contrast
2 Scroll
3 GRAY

2. Tapping **1 Contrast**, the following color bar display appears.

RED
GREEN
BLUE
BLACK
WHITE

Pressing **Action Control** button, Color Bar check Menu display appears again.
Even if tapping **2 Scroll**, this unnecessary check can not be performed because this check becomes unnecessary.

3. Tapping **3 GRAY**, all gray display appears on the screen.
If abnormal displays (flicker, vertical stripe and so on) are detected, change **Vcom** voltage rotating the variable resistor **VR300**.
Refer to page 70 in the Service Manual for **E-115** concerning **Vcom** (Common electrode voltage for TFT LCD pixel drive).
VR300 can be supplied as one of the spare parts. Refer to **PARTS LIST** concerning **VR300**.
To adjust actually, removing the screws assembled onto the lower case, disassemble the unit as shown below. Then rotate this variable resistor (VR300) using a ceramic screw driver (minus/ 1.8 mm width) to make the screen the normal display (no flicker and no stripes).



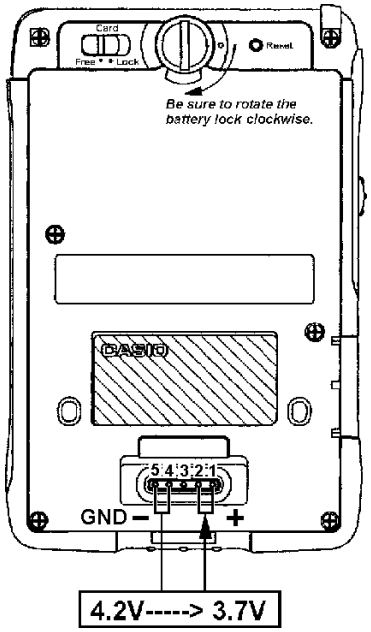
8-4-2-8. Setting (Adjusting) DC voltage to AD converter

The following operation are not only for Check, but also for setting (adjusting) for DC voltage to AD converter in CPU.
When calibration for touch panel, battery voltage detection and so on are not correctly performed, try to check and perform these settings (adjustments).
Prepare one DC voltage stabilizers for Main battery power supply.

Important ⚠

These settings (adjustments) for the main PC Board Assembly has not be performed in the factory.
Therefore, be sure to perform this setting (adjustment) whenever you replace the main PC Board Assembly along with **replacing EEPROM (EROM1) as described in page 79**.
Writing Serial ID No. data etc . to EEPROM using the Bar Code Reader and this diagnostic program, it may become unnecessary to replace EEPROM.
This writing procedure may be informed in the near future.

1. Remove the rechargeable main battery and AC adapter.



2. Using a coin or screwdriver, rotate the battery lock clockwise as shown above.
3. Using DC voltage stabilizer, supply DC voltage (4.2V) to 1 PIN terminal as shown above.
   1 PIN terminal is shorted to 2 PIN terminal interior the unit.
   4 PIN terminal is also shorted to 5 PIN terminal interior the unit.
   Turn on the unit's power. After that, it is recommended to perform **RESET** or **FULL RESET** operation.
4. Booting the diagnostic program, display Main Menu for the operation check.
5. Make the voltage power supply added to the main battery terminal 4.2V (0.05V.
6. Tapping **9 voltage Write**, the following display appears.

   ***** <AD Revision Value Write> *****
   <Max Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

7. Pressing **Contacts** button, the following display appears.

   ***** <AD Revision Value Write> *****
   <Max Level Write>
   AD Value Read! 0x8...
   <Min Level Write>

Voltage Write-> Contacts Key
Escape -> ON Key

If the unit can not read the voltage 4.2V correctly, "**No Good. Please retry!!**" message will appear.
Note that the unit can not be progressed in the next stage whenever this message appears.

8. Make the voltage power supply added to the main battery terminal 3.7V ± 0.05V.
   Then, press **Contacts** button again.
   Doing so, the following display appears.

***** <AD Revision Value Write> *****
<Max Level Write>
AD Value Read! 0x8...
<Min Level Write>
AD Value Read! 0x8...

WriteData Value
Max=0x....
Min=0x....
----------→ Test END
Push Action Key

9. Pressing **Action Control** button, the following display appears along with **Main Menu** display (under **Main Menu** display).

AD Code=OOOOO
CPROG Rev.0.95 for JX-590/597

If missed, the following # display will appear instead of **O**.

AD Code=# # # # #
CPROG Rev.0.95 for JX-590/597

If the display appears, be sure to try to perform these settings (adjustments) again.
After turning off the unit power, stop to add the powers to the unit.
Finally, after connecting the rechargeable main battery and AC adapter to the unit, perform **Initial Setup** or **FULL RESET**.

----- END -----

9. TROUBLE SHOOTING

Before assuming malfunction and contacting your service provider when experiencing operational problems, be sure to check the following information as well as the troubleshooting section of the *Pocket PC User's Guid*e first.

Response to screen tap is exceedingly slow.	
Possible Cause	**Recommended Action**
Available memory is very low.	Reset the unit. If resetting the unit does not correct the problem, perform a full reset (which deletes memory contents).

Nothing happens when the [Power] button is pressed.	
Possible Cause	**Recommended Action**
Main battery is weak.	Charge the battery pack.
Internal malfunction	Reset the unit. If resetting the unit does not correct the problem, perform a full reset (memory initialize).

Operation is disabled when the AC adapter is connected.	
Possible Cause	**Recommended Action**
Main battery is weak.	Charge the battery pack.
The unit is not mounted on the cradle correctly.	Mount the unit on the cradle correctly.

Replacing the main battery caused malfunction.	
Possible Cause	**Recommended Action**
Main battery is not loaded correctly.	Remove and then reload the main battery.

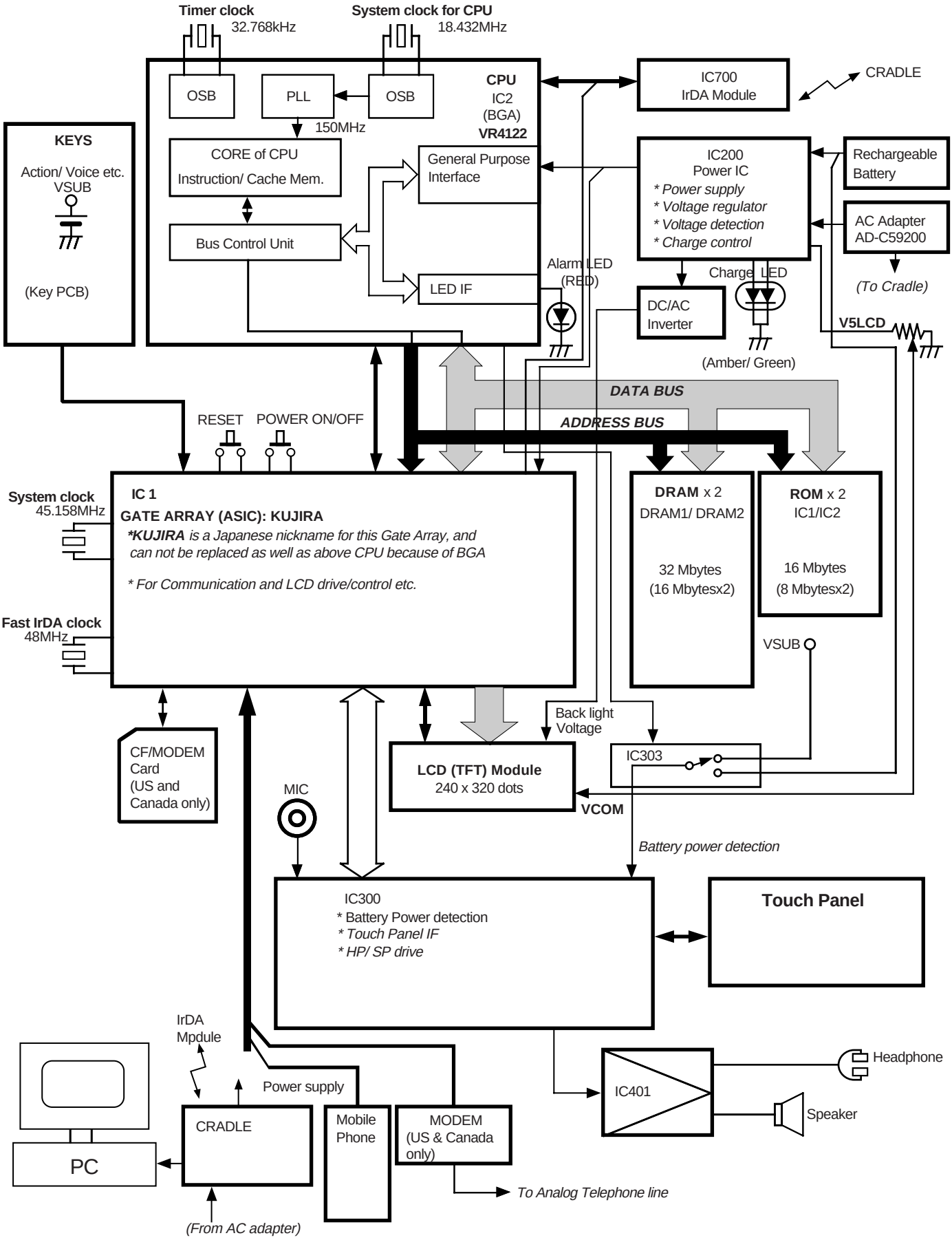
Rechargeable battery pack life is very short after each charge.	
Possible Cause	**Recommended Action**
Battery pack is damaged or has reached the end of its service life.	Purchase a new battery pack.

Nothing happens when the touch screen is touched.	
Possible Cause	**Recommended Action**
The touch screen is out of calibration.	Recalibrating the touch screen.
Static electricity or some other problem has caused the touch screen to malfunction.	Reset the unit.
The touch screen is damaged.	Contact your original dealer or an expert.

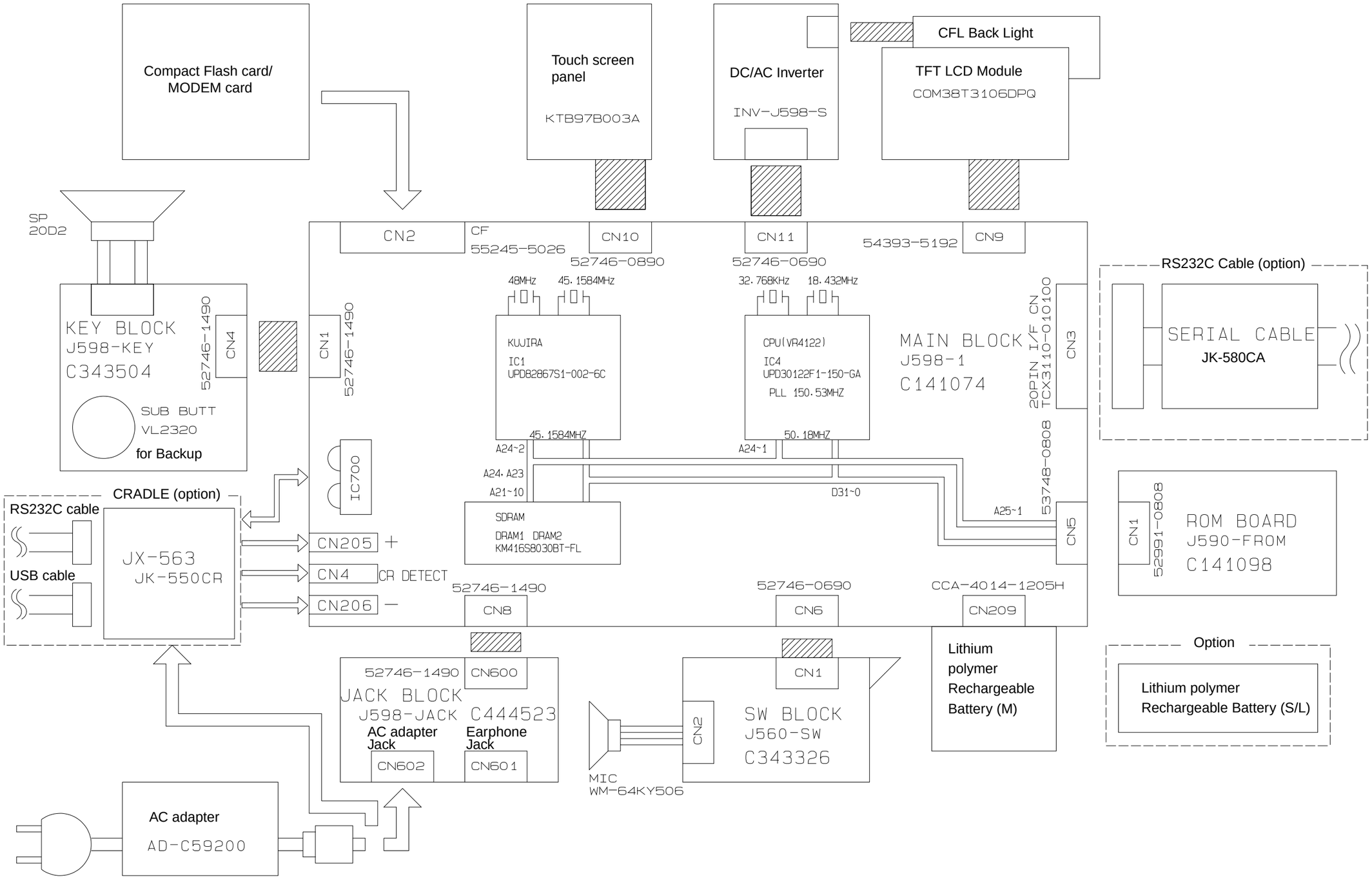
The screen is locked up.	
Possible Cause	**Recommended Action**
Internal malfunction	Reset the unit. If resetting the unit does not correct the problem, perform a full reset (memory initialize).

A message about a data error is on the screen.	
Possible Cause	**Recommended Action**
Internal malfunction	Follow the instructions that appear on the screen.

10. CIRCUIT BLOCK DIAGRAM

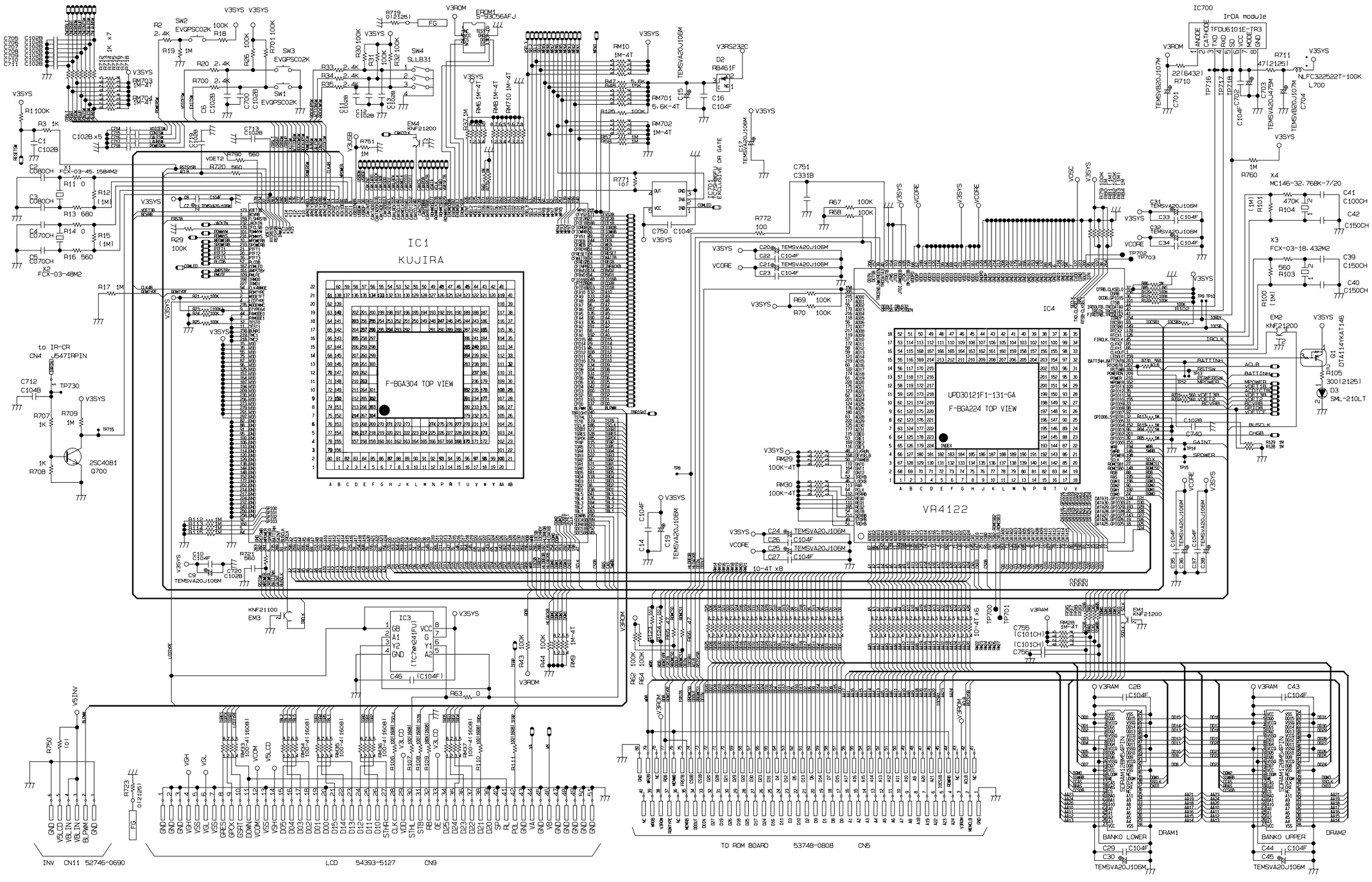


11. WIRING DIAGRAM

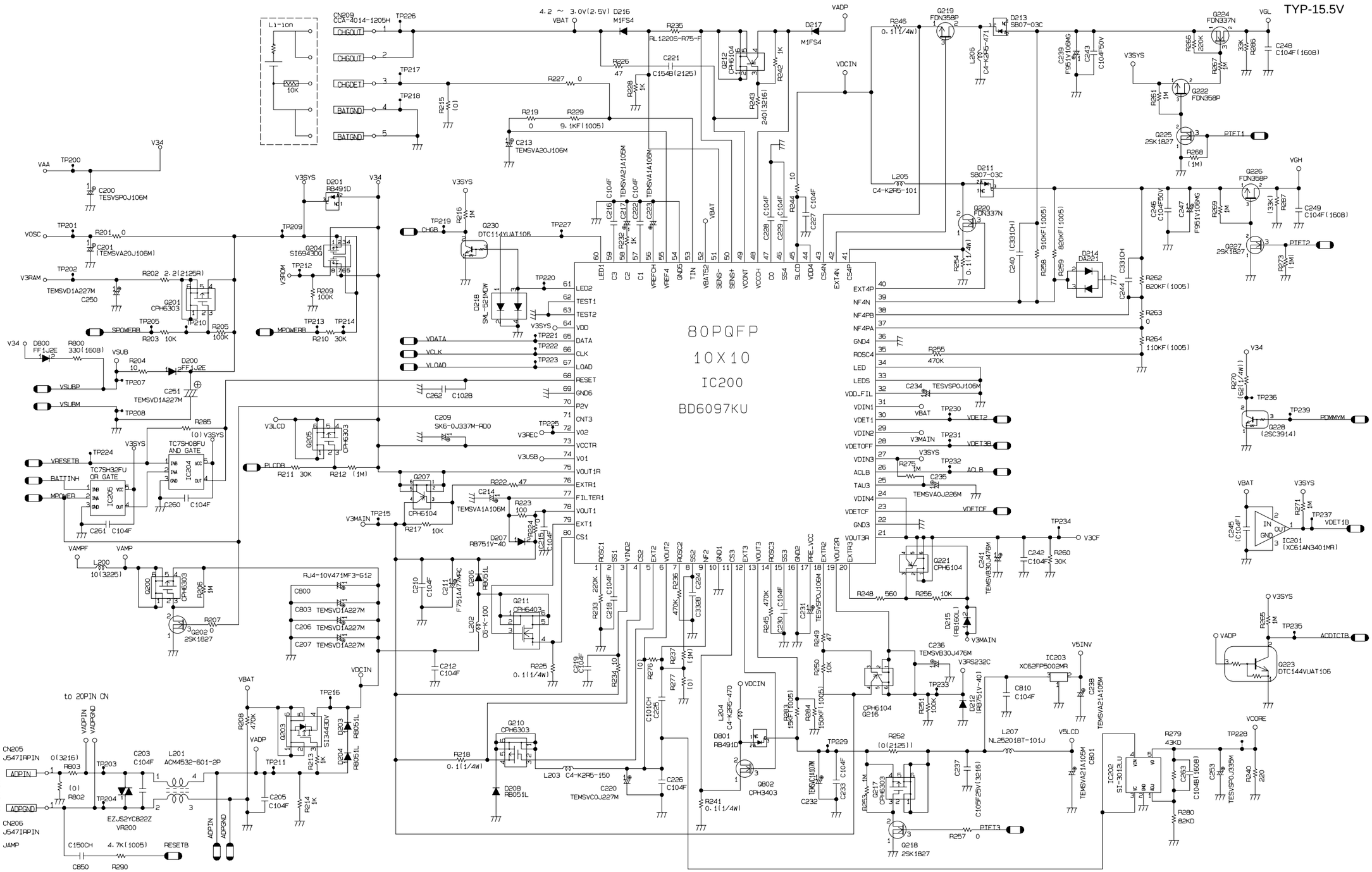


12. SCHEMATIC DIAGRAMS

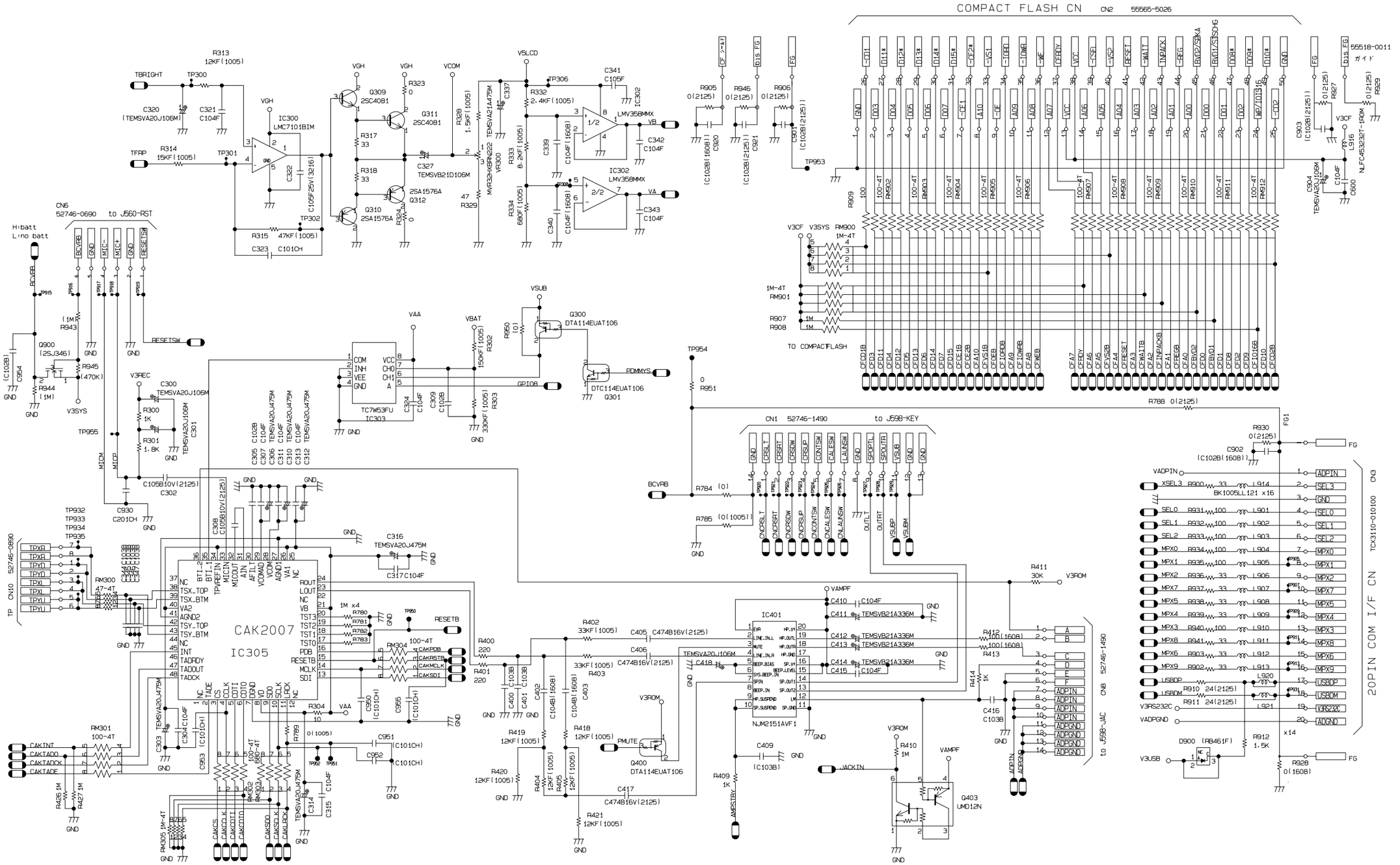
12-1. Main block (1/3)



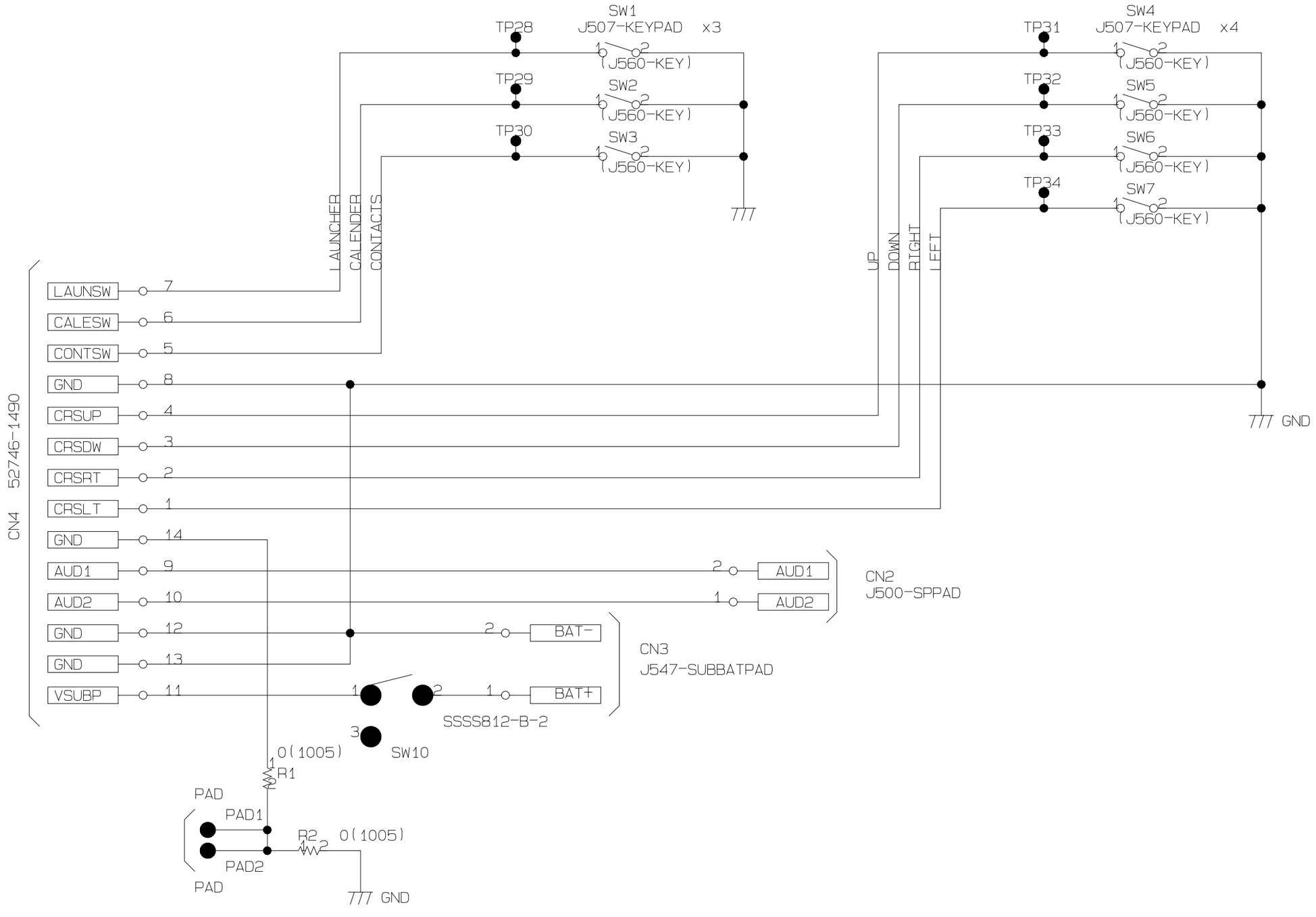
12-1. Main block (2/3)



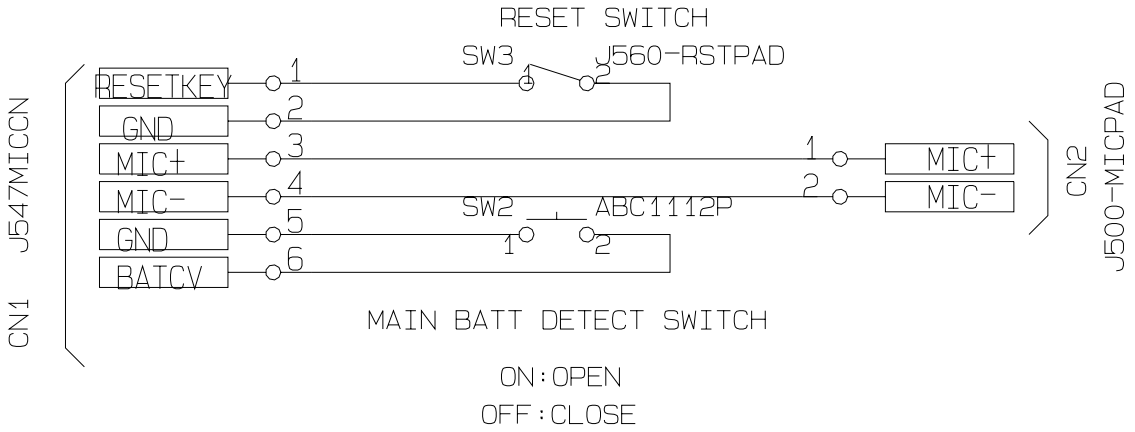
12-1. Main block (3/3)



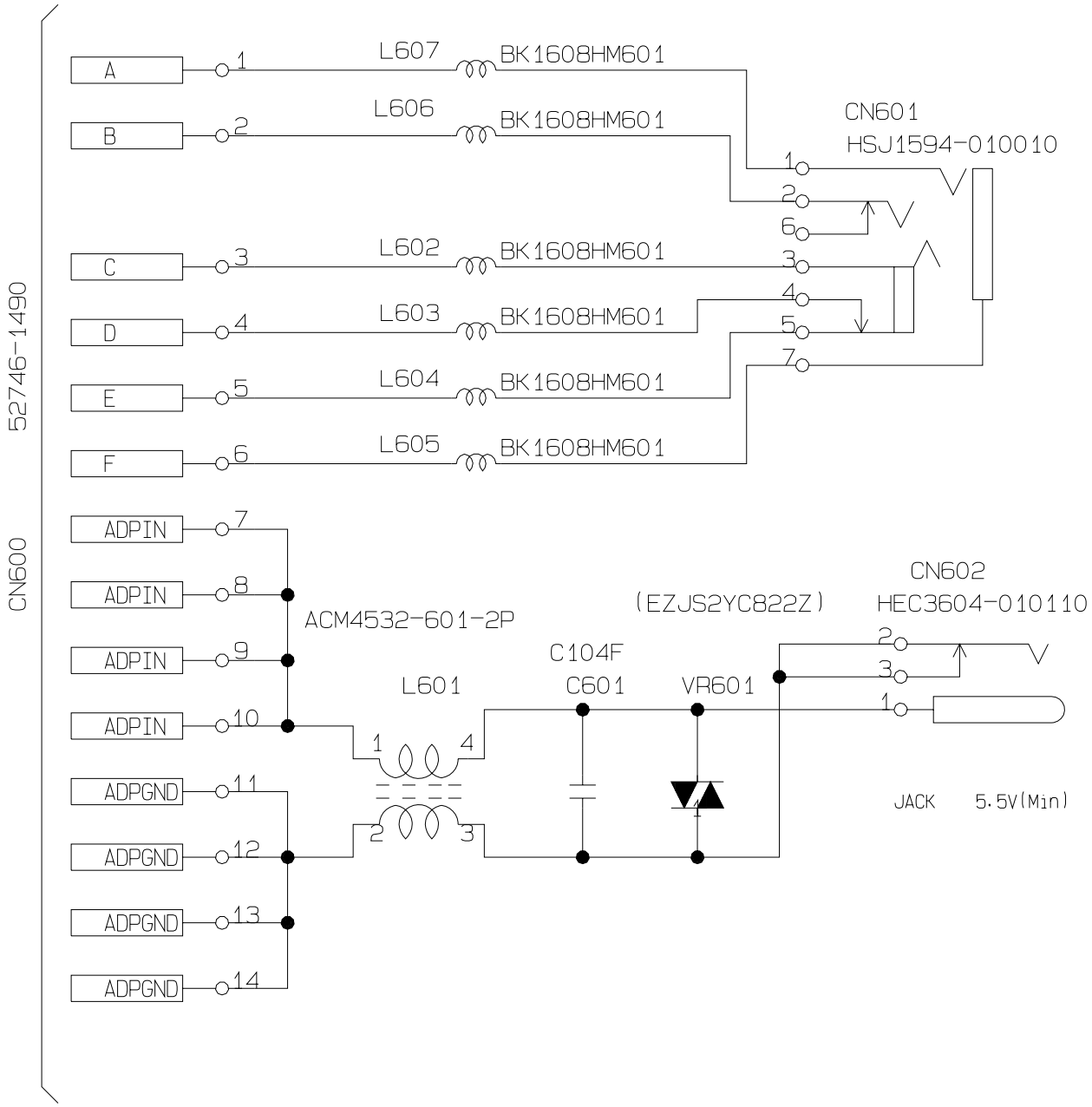
12-2. Key block



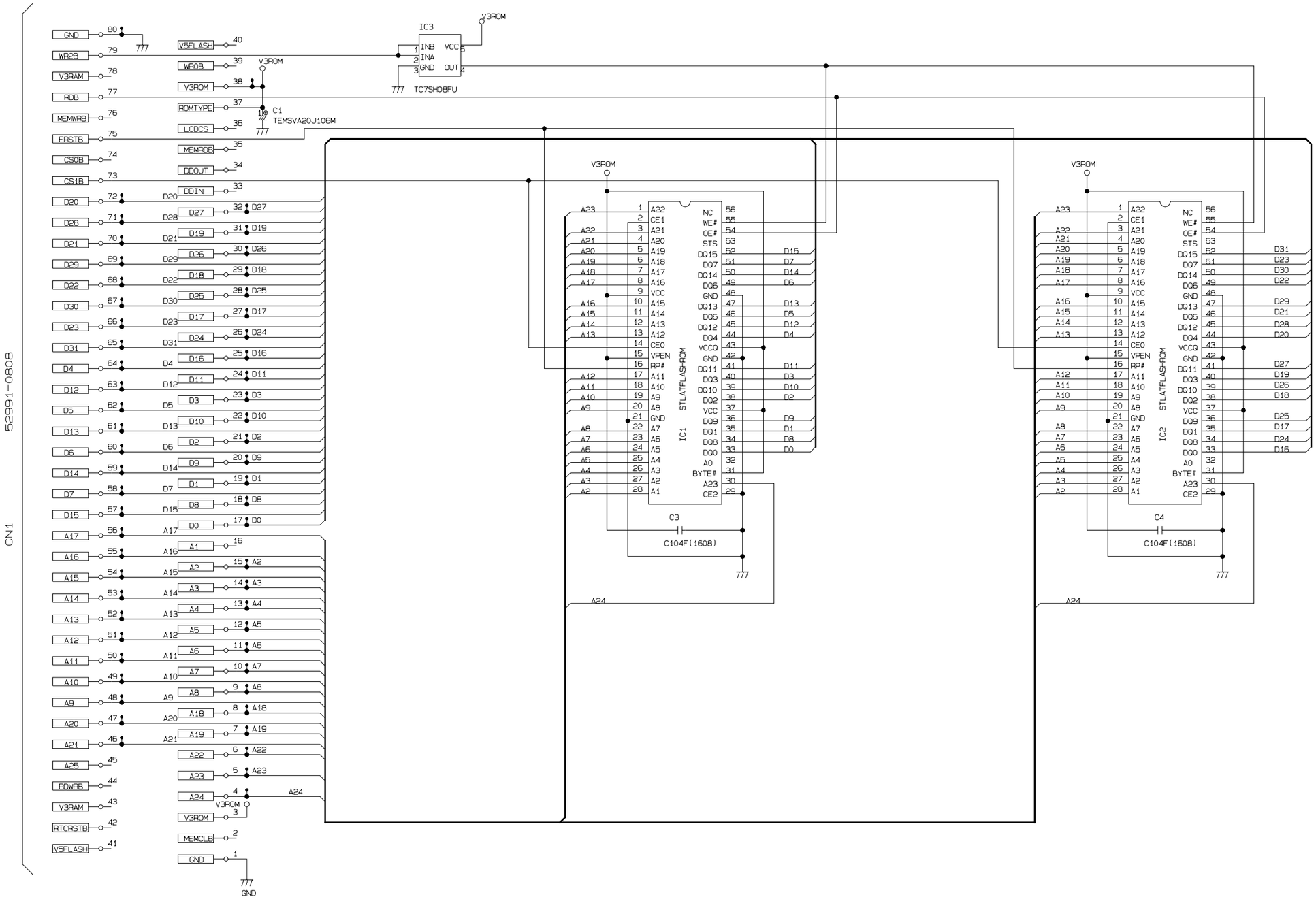
12-3. Reset Switch block



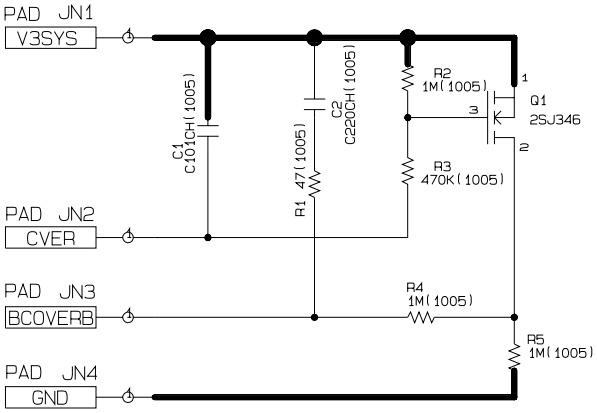
12-4 Jack block



12-5. Flash ROM board

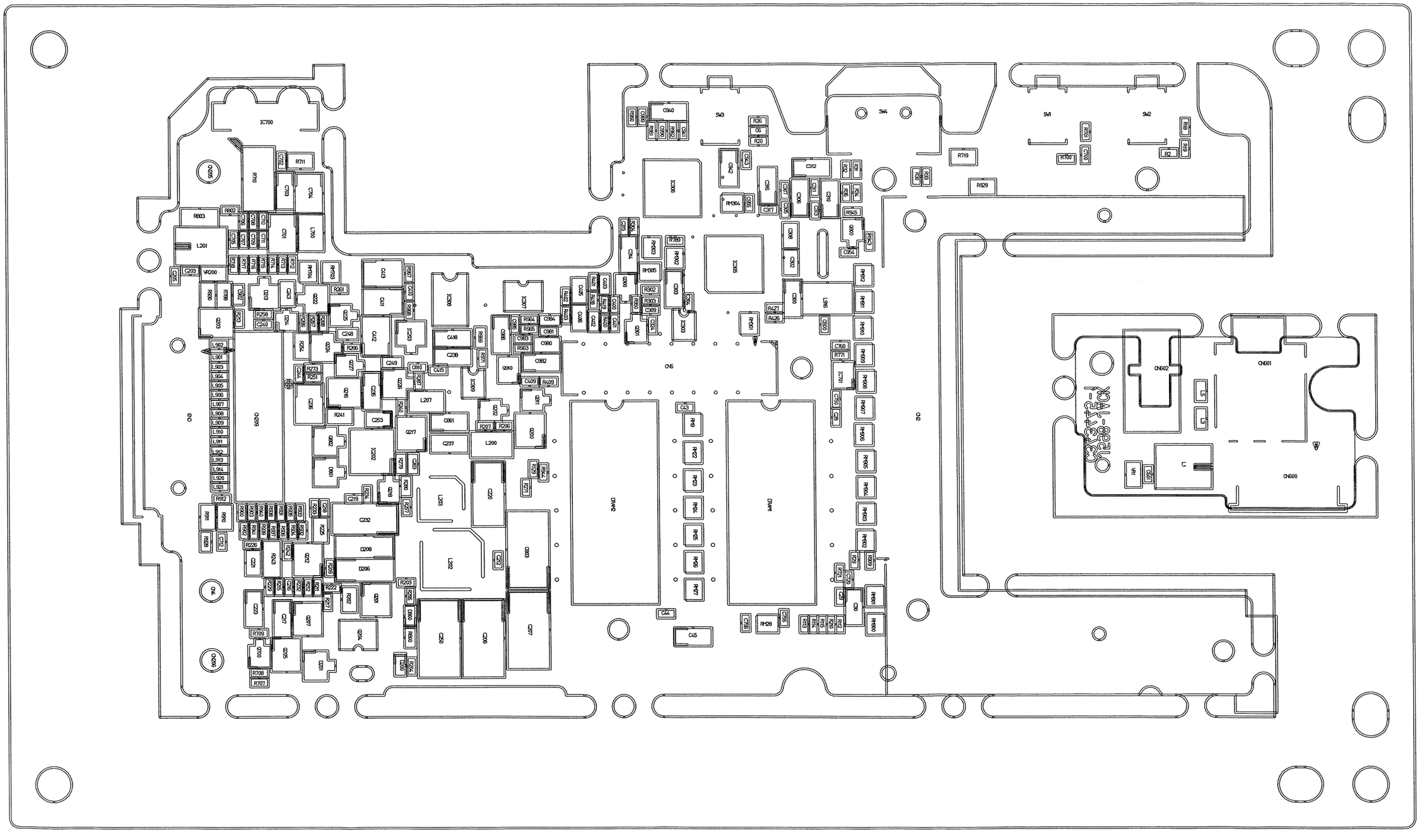


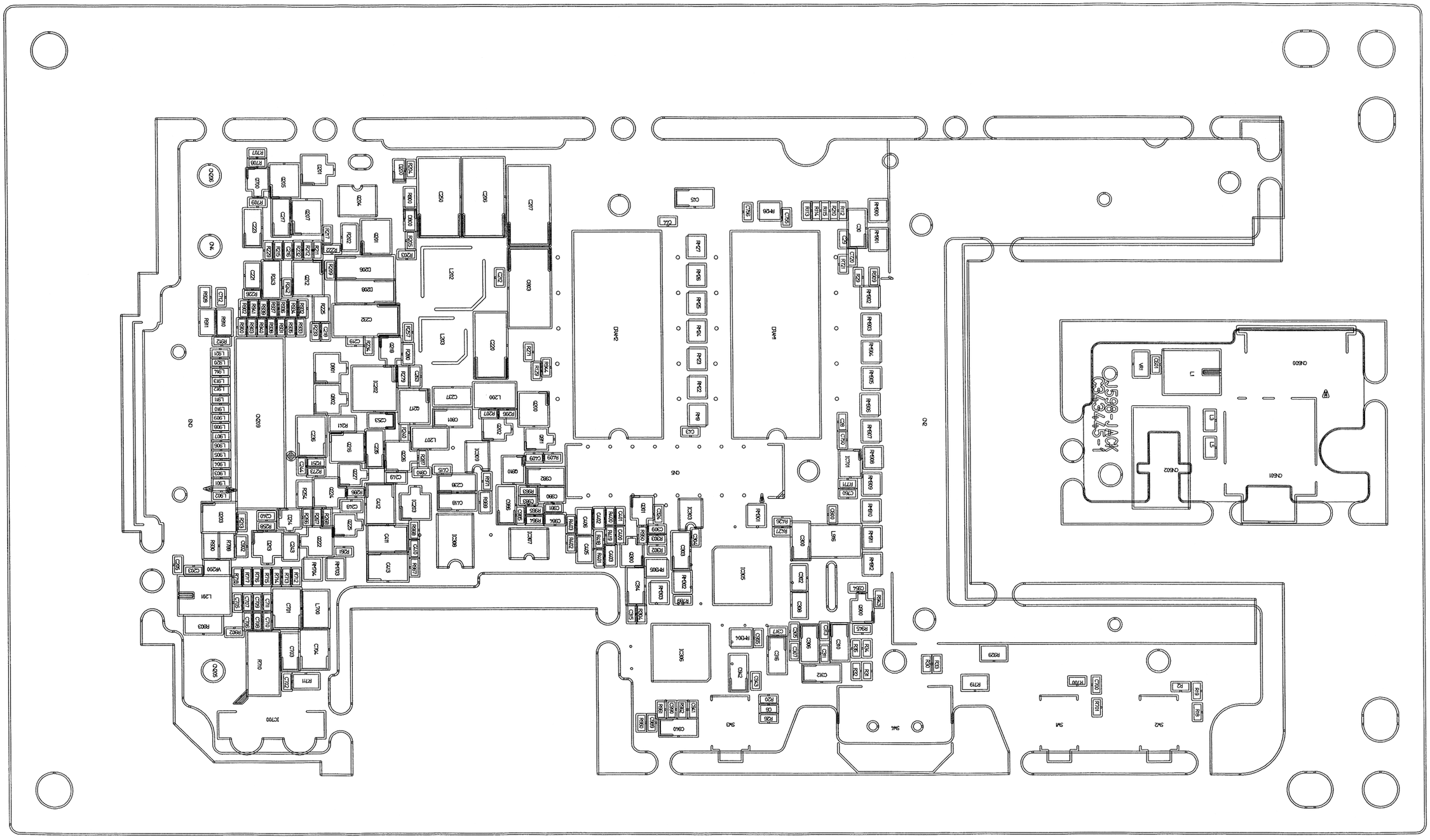
12-6 Sub block



13. PCB VIEW

Main PC Board (Bottom View)




CN600
CN601
CN602
CN603
CN604
CN605
CN606
CN607
CN608
CN609
CN610
CN611
CN612
CN613
CN614
CN615
CN616
CN617
CN618
CN619
CN620
CN621
CN622
CN623
CN624
CN625
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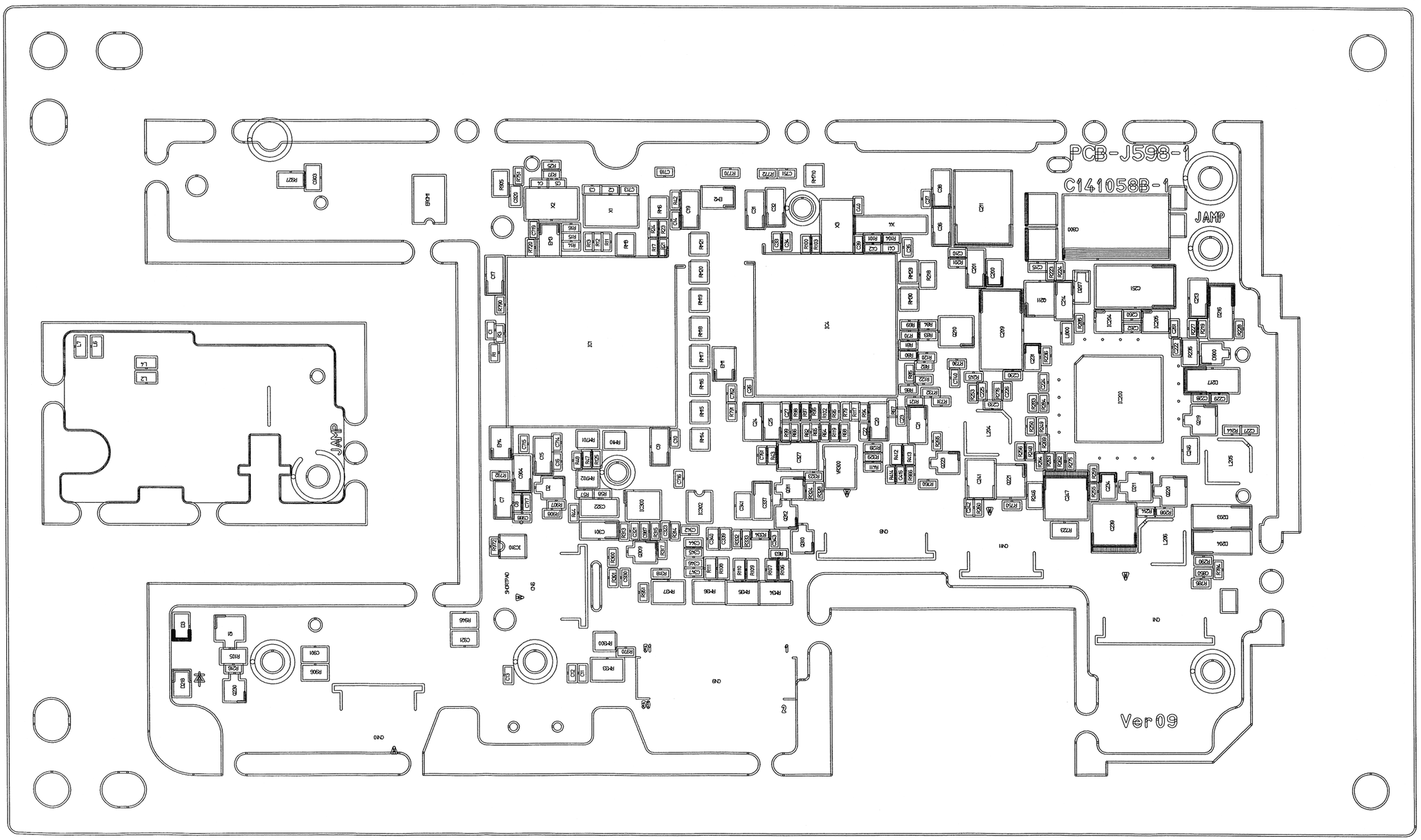
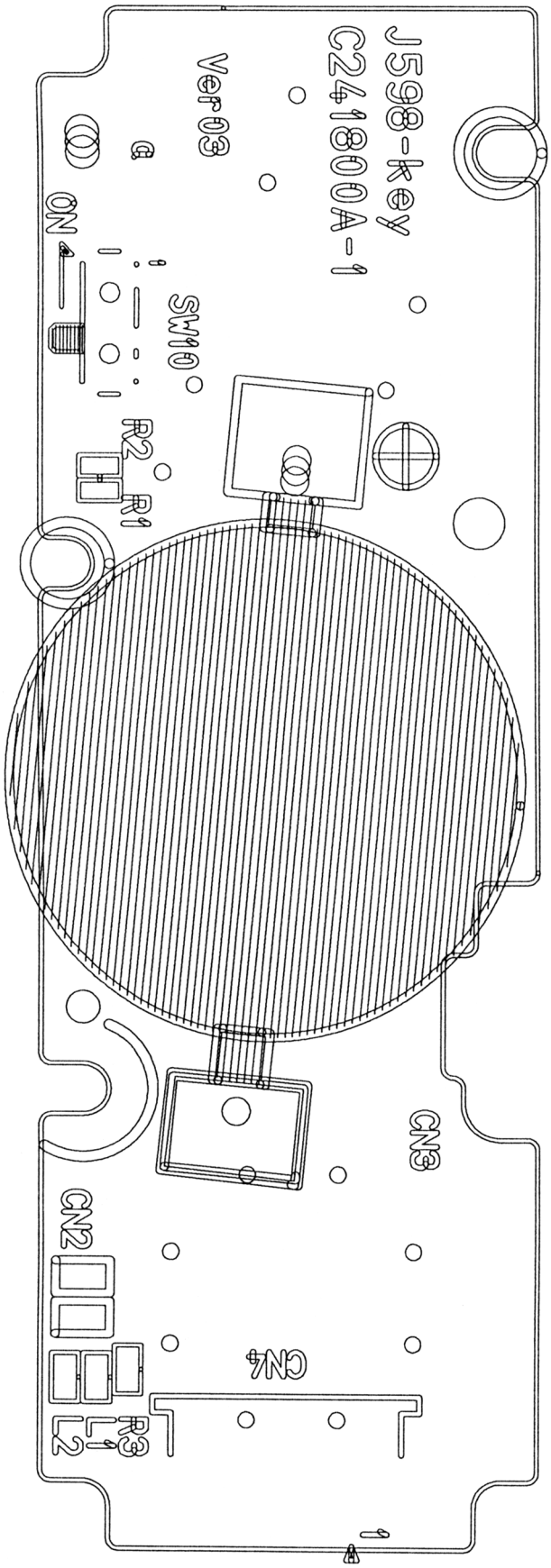
CN633
CN634
CN635
CN636
CN637
CN638
CN639
CN640


PCB-J598-1
C141058B-1
JAMP
JAMP
Ver09
GND
SHORTPAD
SW1
SW2
1
2

Key PC Board

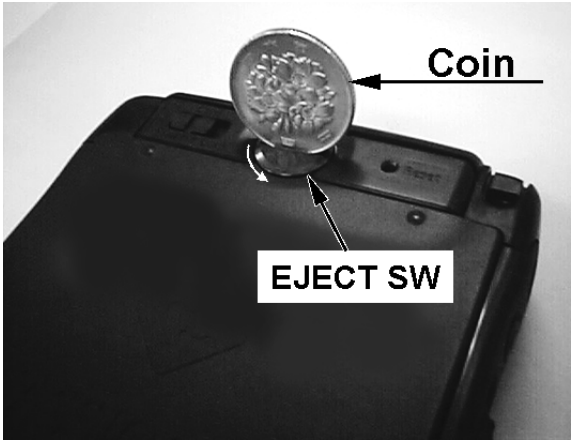


14. DISASSEMBLY PROCEDURE

Refer to **GENERAL GUIDE, PARTS LIST** and **EXPLODED VIEW** in this manual.

1. Remove the stylus as shown to the right.

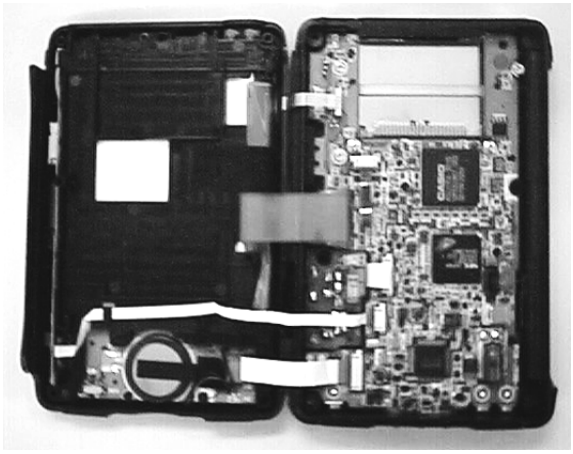
2. Rotate the eject switch counterclockwise using a coin or a screwdriver to remove the lithium polymer rechargeable battery (main battery) as shown to the right.



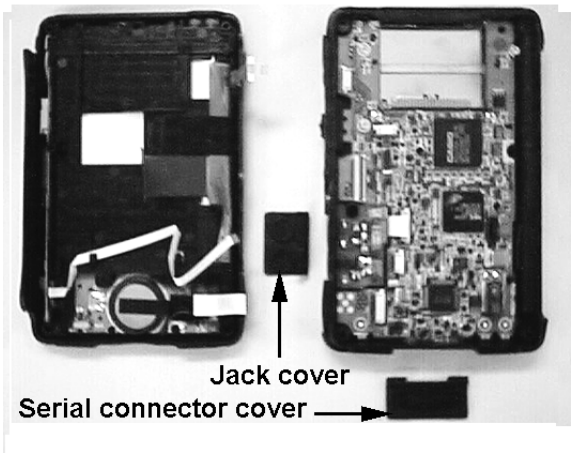
3. Remove the main battery and card slot cover as shown to the right.

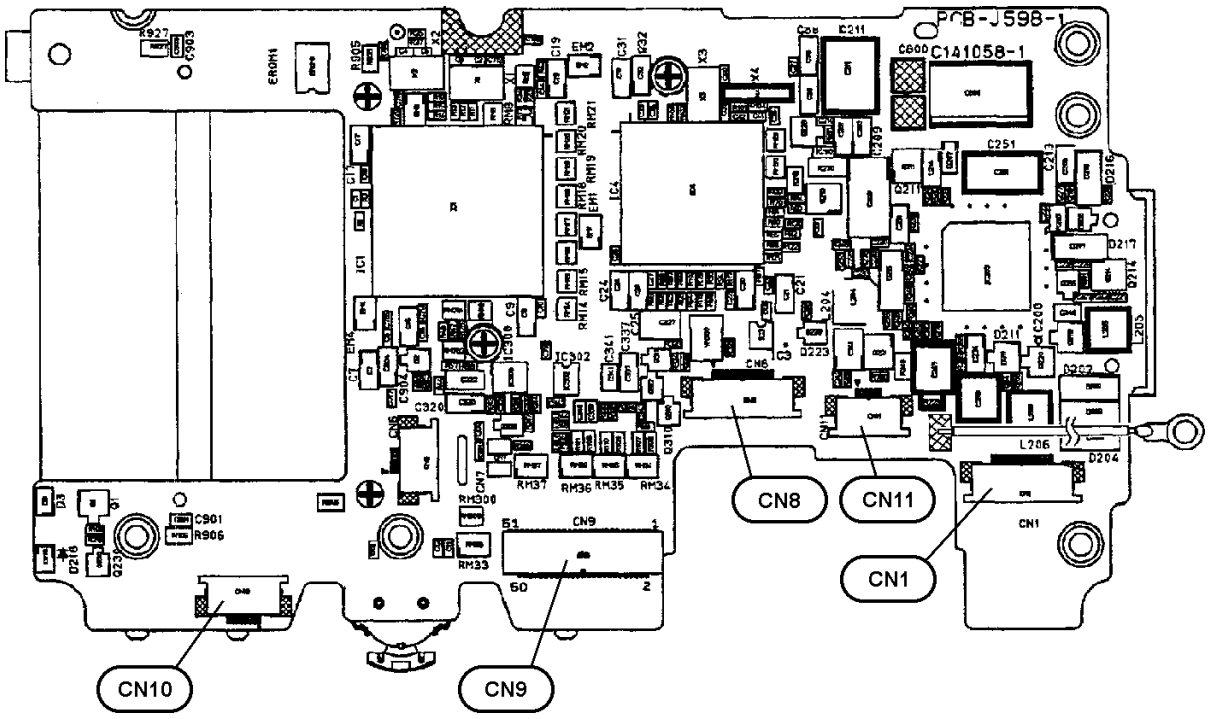
4. Remove the six screws assembled onto the back as shown to the right.
   Note that below two screws are longer compared with the upper four screws in the right photograph.
   Removing these screws, the unit can be opened.

5. Open the unit as shown to the right.
   The unit can be opened by hand.
   In other words, the unit can be opened without an opener or the other tools.

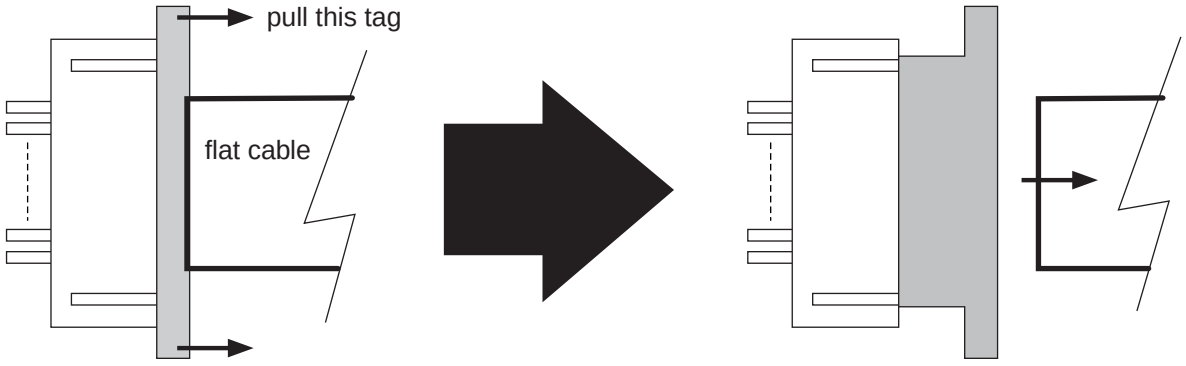


6. Disconnect the flat cables from connectors assembled onto the man PC Board Assembly.
   Refer to the next page illustration how to disconnect these flat cables.
   Remove the jack cover and the serial connector cover also as shown to the right.
   Doing so, the upper case assembly can be separated from the lower case assembly.
   You can disassemble both assemblies from this stage.
   Decide which assembly you disassemble for your purposes.





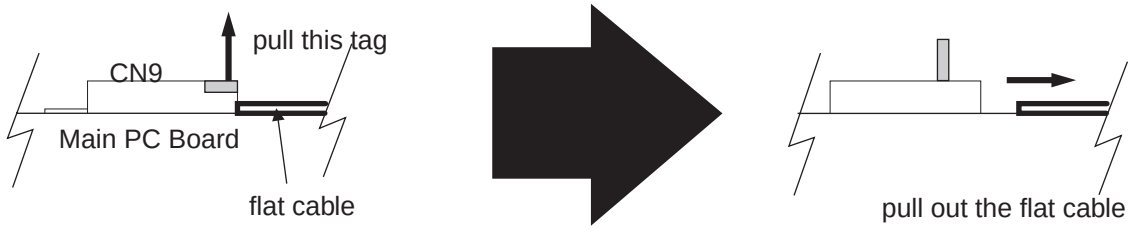
In case of CN1, CN8, CN10 and CN11 (except CN9):



<TOP VIEW> <TOP VIEW>

After pulling above tag, pull out the flat cable as shown above.

In case of CN9:

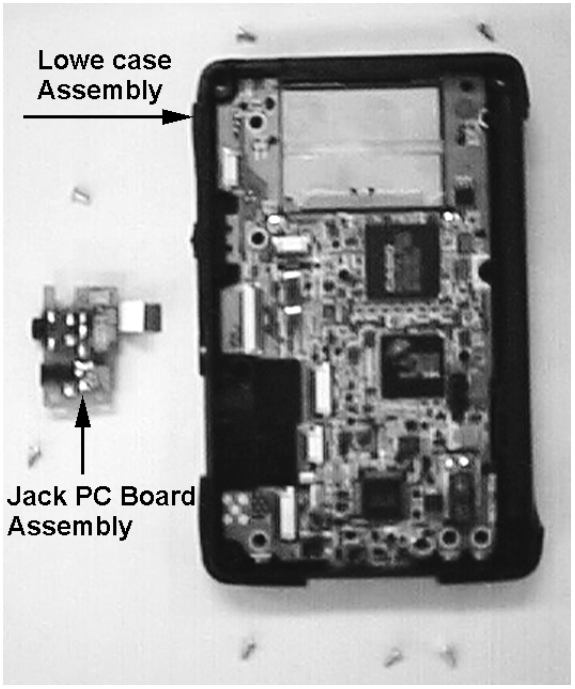


<SIDE VIEW> <SIDE VIEW>

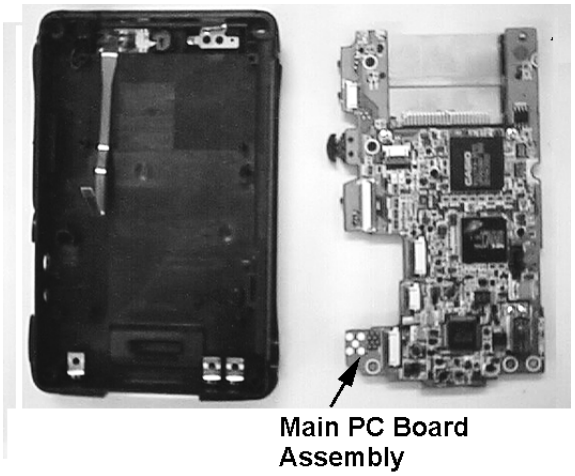
After pulling the tag upward, pull out the flat cable as shown above.

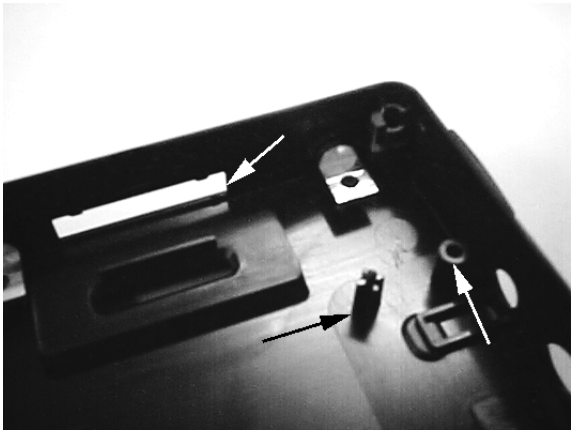
■ Disassembling the lower case assembly

7. Remove screws assembled onto the lower case assembly as shown to the right.
   Doing so, the main PC Board can be removed including the jack PC Board assembly.



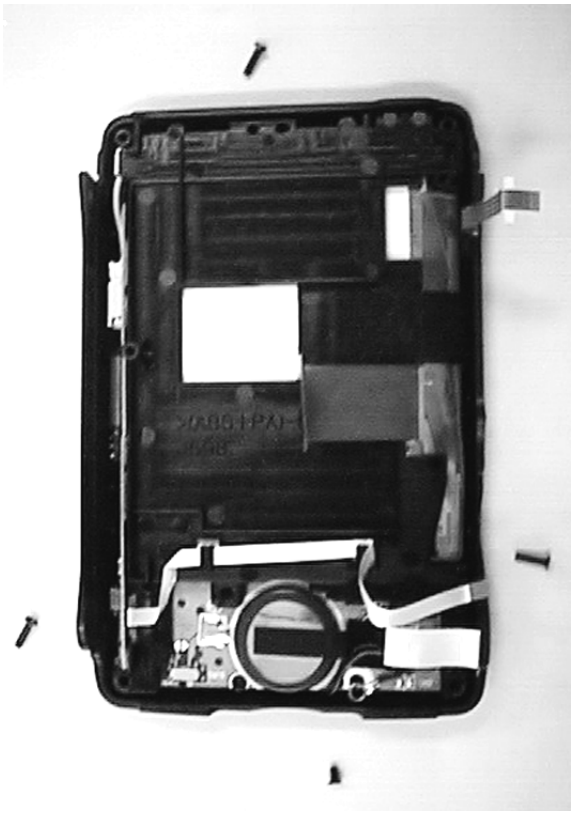
8. After disconnecting the flat cable from CN6 connector, remove the main PC Board assembly as shown to the right.
   Refer to PCB ASSY/MAIN in EXPLODED VIEW in this manual concerning CN6 position.
   Note that it is difficult to remove the main PC Board assembly because edges of this PC Board assembly and the connector strike on the ribs and edge shown in the below photograph with arrows when removing.
   It is recommended to lift up the main PC Board assembly using tweezers or the other tools when removing not to damage this assembly.
   It is easier to assemble this assembly.



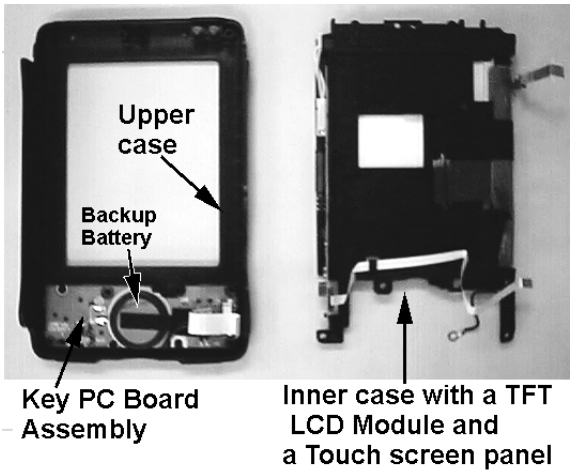


■ Disassembling the upper case assembly

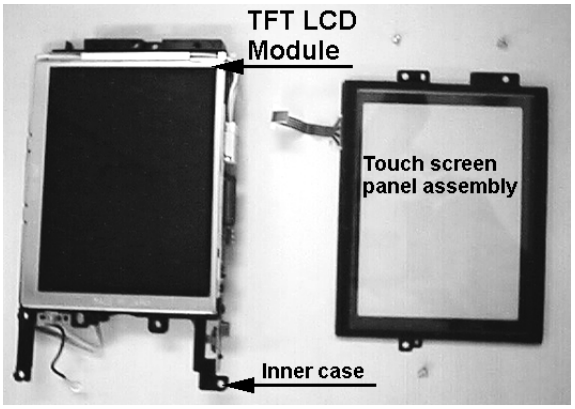
9. Remove the four screws as shown to the right.



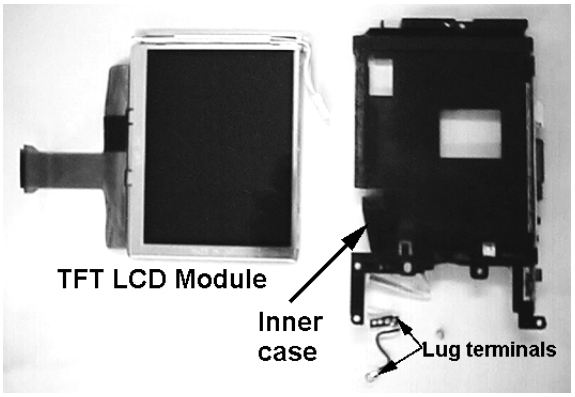
10. Remove the inner case unit onto which TFT LCD Module and a Touch screen panel are assembled as shown to the right.



11. After removing screws, remove the touch screen panel assembly as shown to the right.



12. Remove TFT LCD Module as shown to the right.
    Note that TFT LCD Module strongly attaches to the inner case by the adhesive tape.
    Refer to EXPLODED VIEW in this manual concerning these adhesive tape positions.
    When peeling this module, don't use the chemical substances.
    Doing so will damages to this module.
    It is recommended to peel this module while cutting off these adhesive tape using a cutter or knife like a razor.



PARTS PRICE LIST
EG-800

N	Item	Code No.	Parts Name	Specification	Q	Price Code	R
	PCB ASSY/MAIN (C141081)						
	IC200	1001 1100	LSI	BD6097KU	1	BU	C
N	IC700	1001 1087	IRDA MODULE	TFDU6101E-TR3	1	BK	C
	D3	2370 1390	LED	SML-210LTT86M	1	AA	C
N	D218	1002 8050	LED	SML-521MDWT86	1	AC	C
	VR300	3122 3717	RESISTER/CHIP SEMI-FIXED	MVR32HXBRN222	1	AA	C
	SW1, SW2, SW3	2370 1392	SWITCH	EVQPSC02K	3	AB	C
	SW4	1001 1066	SWITCH	SLLB31-B-B-B	1	AN	C
N	X1	1002 8054	OSCILLATOR/CRYSTAL	FCX-03-45.1584M2	1	AM	C
N	X2	1002 8055	OSCILLATOR/CRYSTAL	FCX-03-48.000M2	1	AM	C
N	X3	2590 2783	OSCILLATOR/CRYSTAL	FCX-03-18.432M2	1	AL	C
N	X4	1002 8045	OSCILLATOR/CRYSTAL	MC146-32.768K-7/20	1	AK	C
	CN1, CN8	1001 1097	CONNECTOR	52746-1490	2	AC	C
N	CN2	1002 5185	CONNECTOR	55565-5026	1	AV	C
	CN3	2259 2752	CONNECTOR	TCX3110-010100	1	AR	C
	CN5	1001 1098	CONNECTOR	53748-0808	1	AO	C
	CN9	3502 2710	CONNECTOR	54393-5192	1	AL	C
N	CN10	1002 9926	CONNECTOR	52746-0890	1	AB	C
	CN11, CN6	3502 2568	CONNECTOR	52746-0690	2	AB	C
	CN209	1001 1094	CONNECTOR	CCA-4014-1205H	1	AS	C
	1	1001 1055	PLATE	55518-0011	1	AN	C
	2	6566 3010	SPACER	C443027-1	2	AA	C
N	3	6562 1600	TERMINAL/LUG	C442156-1	1	AA	C
	CN600	1001 1097	CONNECTOR	52746-1490	1	AC	C
	CN601	1002 8032	CONNECTOR	HSJ1594-010010	1	AF	C
	CN602	1001 2339	CONNECTOR	HEC3604-010110	1	AE	C
N	4	1002 9937	CABLE/JOINT	C444443-1	1	AD	C
	PCB ASSY/KEY (C343497*1)						
	5	3335 6578	SPEAKER	20D2	1	AV	C
	6	1001 2019	TAPE/INSULATION	C443896-1	1	AA	C
	7	1001 2020	SPACER	C443899-1	1	AA	C
	8	1001 2021	BATTERY/LITHIUM	VL2320/1F2	1	AV	C
	9	1001 5221	TAPE/INSULATION	C444196-1	1	AA	C
	CN4	1001 1097	CONNECTOR	52746-1490	1	AC	C
	SW10	1002 1883	SWITCH	SSSS812-B-2B	1	AB	C
	INNER CASE UNIT						
	10	1003 0001	LCD MODULE	COM38T3106DPQ	1	EC	B
	11	1003 0002	INVERTER	INV-J598-S	1	BR	C
	12	1002 9990	CASE/INNER	C141059-1	1	AG	X
	13	1002 9992	CUSHION	C444416-1	1	AA	C
	15	1002 9994	CUSHION	C444418-1	1	AA	C
	16	1002 9995	CUSHION	C444419-1	1	AB	C
	17	1002 9996	TAPE/ADHESIVE	C444421-1	1	AA	C
	18	1002 9997	TAPE/ADHESIVE	C444423-1	1	AA	C
	19	1002 9998	CABLE/JOINT	C444441-1	1	AC	C
	20	1002 9999	SPRING/EARTH	C444442-1	1	AA	C

N	Item	Code No.	Parts Name	Specification	Q	Price Code	R
	21	1003 0000	TAPE	C444458-1	1	AA	C
	22	6562 1600	TERMINAL/LUG	C442156-1	1	AA	C
N	23	1003 8148	PANEL/TOUCH	KTB97C003A	1	CO	B
N	24	1003 0020	PLATE	C343447-1	1	AI	C
N	25	1003 0021	TAPE	C444454-1	1	AU	C
N	80	1004 3660	SPACER	C444793-1	1	AA	C
N	81	1004 3661	SPACER	C444794-1	1	AA	C
N	82	1004 3662	CUSHION	C444795-1	1	AA	C
	83	1003 7160	TAPE	C444634-1	2	AA	C
	UPPER CASE ASSY						
	26	1003 0169	PCB ASSY/KEY	C343497*1 TK	1	BV	C
N	27	1003 8414	CASE/UPPER	C141053-2	1	BO	X
	28	1001 1967	KEY	C342939-1	1	AT	C
	29	1001 1969	RUBBER/KEY	C342947-1	1	AB	C
	30	1001 1970	RUBBER/KEY	C342948-1	1	AB	C
	31	1003 0003	PLATE	C343437-1	1	AN	C
	32	1003 0004	COVER	C343446-1	2	AB	C
	33	1001 1972	CABLE/JOINT	C443832-1	1	AD	C
	34	1001 1979	SPACER	C443900-1	1	AA	C
	35	1001 1981	NET/SPEAKER	C443960-1	1	AD	C
	36	1003 0006	KEY	C444412-1	1	AF	C
	37	1003 0007	KEY	C444413-1	1	AF	C
	38	1003 0008	KEY	C444414-1	1	AF	C
	39	1003 0009	SPACER	C444460-1	2	AA	C
	PCB ASSY/SWITCH (C343114*1)						
	40	3335 6646	MIC	WM-64KY102	1	AM	C
	41	1001 2023	CABLE/JOINT	C443903-1	1	AE	C
	42	3412 2107	SWITCH	ABC1112P	1	AB	C
	43	6562 1620	HOLDER	C442143-1	1	AA	C
	LOWER CASE ASSY						
	44	1001 1989	KEY SUB ASSY	C343028*1	1	AT	C
	45	1001 4561	PCB ASSY/SWITCH	C343114*1 TK	1	BE	C
N	46	1003 8415	CASE/LOWER	C141092-1	1	BK	X
	47	1001 1983	PLATE	C342942-1	1	AT	C
	48	1001 1984	KNOB	C342943-1	1	AA	C
	49	1001 1985	PLATE	C342944-1	1	AA	C
	50	1001 1986	PLATE	C342945-1	1	AB	C
	51	1001 1987	RUBBER/RESET	C342949-1	1	AA	C
	52	1001 1995	TERMINAL	C443892-1	3	AI	C
	53	1001 1996	HOLDER	C443893-1	3	AA	C
	54	1001 1991	HOOK	C443887-1	1	AA	C
	55	1001 1994	PLATE	C443891-1	1	AA	C
	56	1001 1997	HOLDER	C443895-1	1	AC	C
	57	1001 1998	FILTER	C443898-1	1	AC	C
	58	1001 1979	SPACER	C443900-1	1	AA	C
	59	1001 1999	CAP	C443901-1	3	AA	C
	60	1001 2000	TAPE	C443912-1	1	AA	C
	61	1001 5219	TAPE	C444205-1	1	AA	C
	62	1002 4560	SPRING/EARTH	C444305-1	1	AC	C

N	Item	Code No.	Parts Name	Specification	Q	Price Code	R
	COMPONENTS						
N	63	1003 9693	PCB ASSY/MAIN	C141081*1 TK	1	EO	B
N	65	1003 9695	PCB ASSY/ROM	C241835*1 TK	1	EE	B
N	66	1003 8406	PLATE	C342432-15	1	AA	C
	67	1001 1952	COVER	C342938-1	1	AB	C
	68	1001 1953	PEN SUB ASSY	C342951*1	1	AK	B
N	69	1003 8407	COVER	C343436-2	1	AD	C
N	70	1003 9696	CF CAP ASSY	C343570*1 TK	1	BB	C
	71	1001 1988	FILTER/IRDA	C342952-1	1	AD	C
	SCREWS						
	100	6394 6400	SCREW	A310044-11	7	AA	X
	101	6336 8250	SCREW	A33953-23	2	AA	X
	102	6337 9150	SCREW	A33953-31	4	AA	X
	103	1003 8146	SCREW	A310854-5	1	AA	X
	104	6396 7660	SCREW	A310044-13	2	AA	X
	105	6337 9150	SCREW	A33953-31	3	AA	X
	106	6338 8270	SCREW	A33953-35	3	AA	X
	107	6562 1390	SCREW	C341659-1	5	AA	X
	108	6338 8270	SCREW	A33953-35	4	AA	X
** Item 108 screw is the same as item 106 screw.*							
	OTHERS						
N	72	1004 1615	SHEET	C343600-1	1	AQ	C
	73	1002 9287	SOFTWARE/CD-ROM(MS)	CDJ670AA01A	1	BM	C
N	74	1004 1473	SOFTWARE/CD-ROM(CASIO)	CDJ590AA02A	1	AM	C
	75	1001 5225	STRAP	ST-J560	1	AL	C
N	76	1004 1475	CASE/SOFT	SCJ590AA01	1	AZ	C
		Parts prices will be informed separately by Parts Price List.					

Notes:N-New parts

Q-Quantity used per unit

R-Rank

R- A:Essential

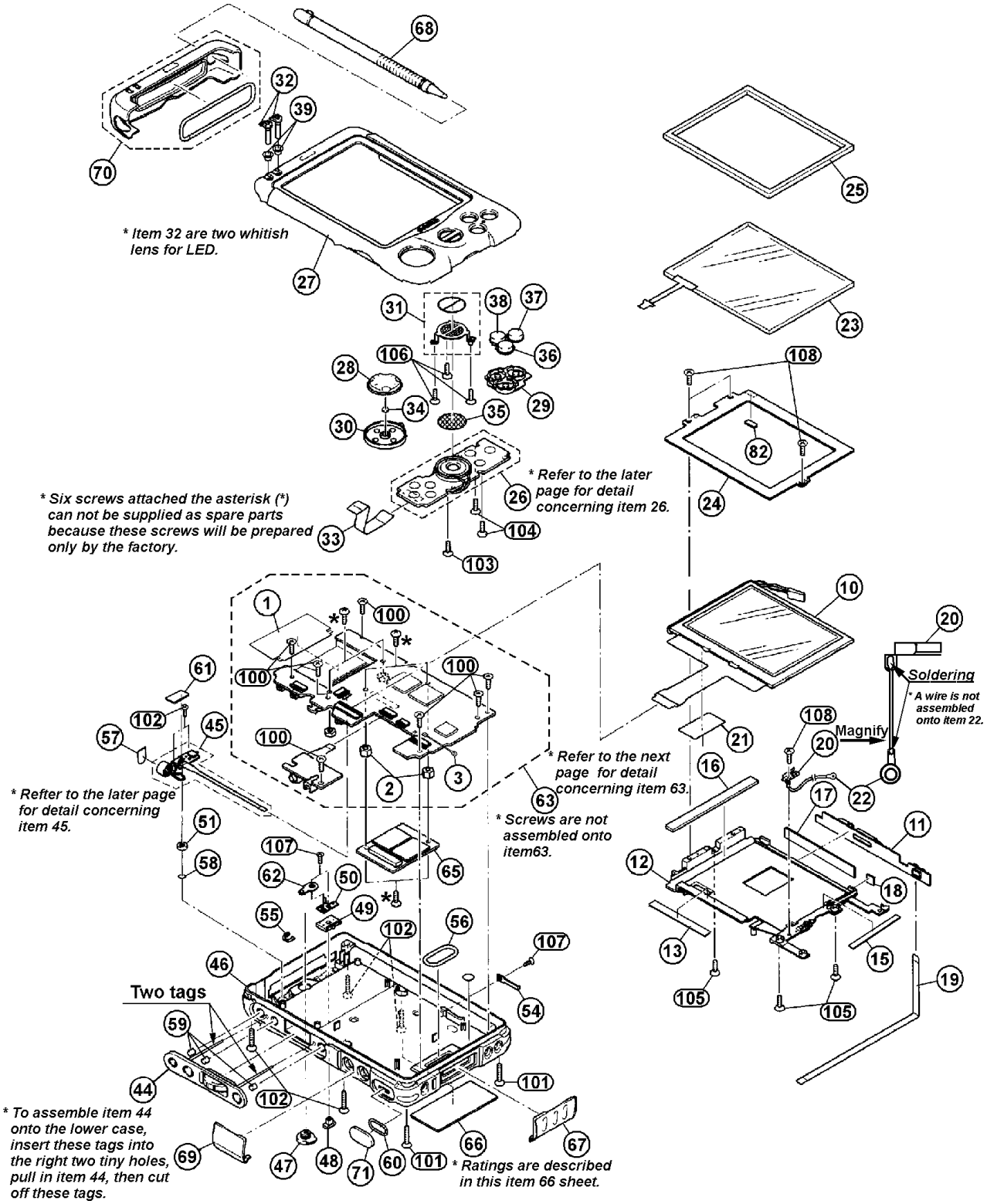
B:Stock recommended

C:Others

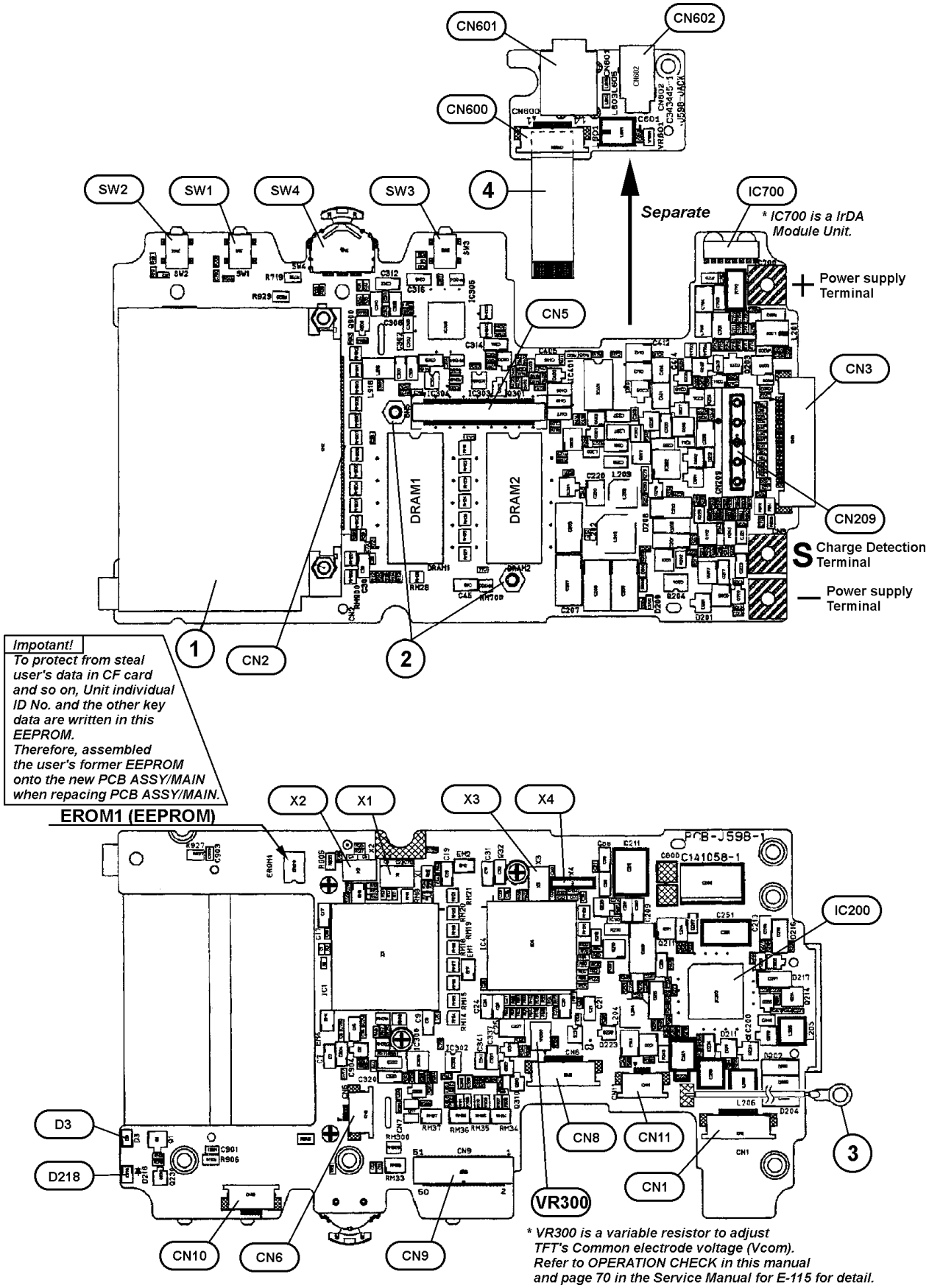
X:No stock recommended

16. EXPLODED VIEW

16-1. PCB Board Assembly and COMPONENTS


* Item 32 are two whitish lens for LED.
* Six screws attached the asterisk (*) can not be supplied as spare parts because these screws will be prepared only by the factory.
* Refer to the later page for detail concerning item 26.
* Refer to the next page for detail concerning item 63.
* Refter to the later page for detail concerning item 45.
* Screws are not assembled onto item63.
Soldering
* A wire is not assembled onto item 22.
Magnify
Two tags
* To assemble item 44 onto the lower case, insert these tags into the right two tiny holes, pull in item 44, then cut off these tags.
* Ratings are described in this item 66 sheet.

16-2. PCB ASSY/MAIN

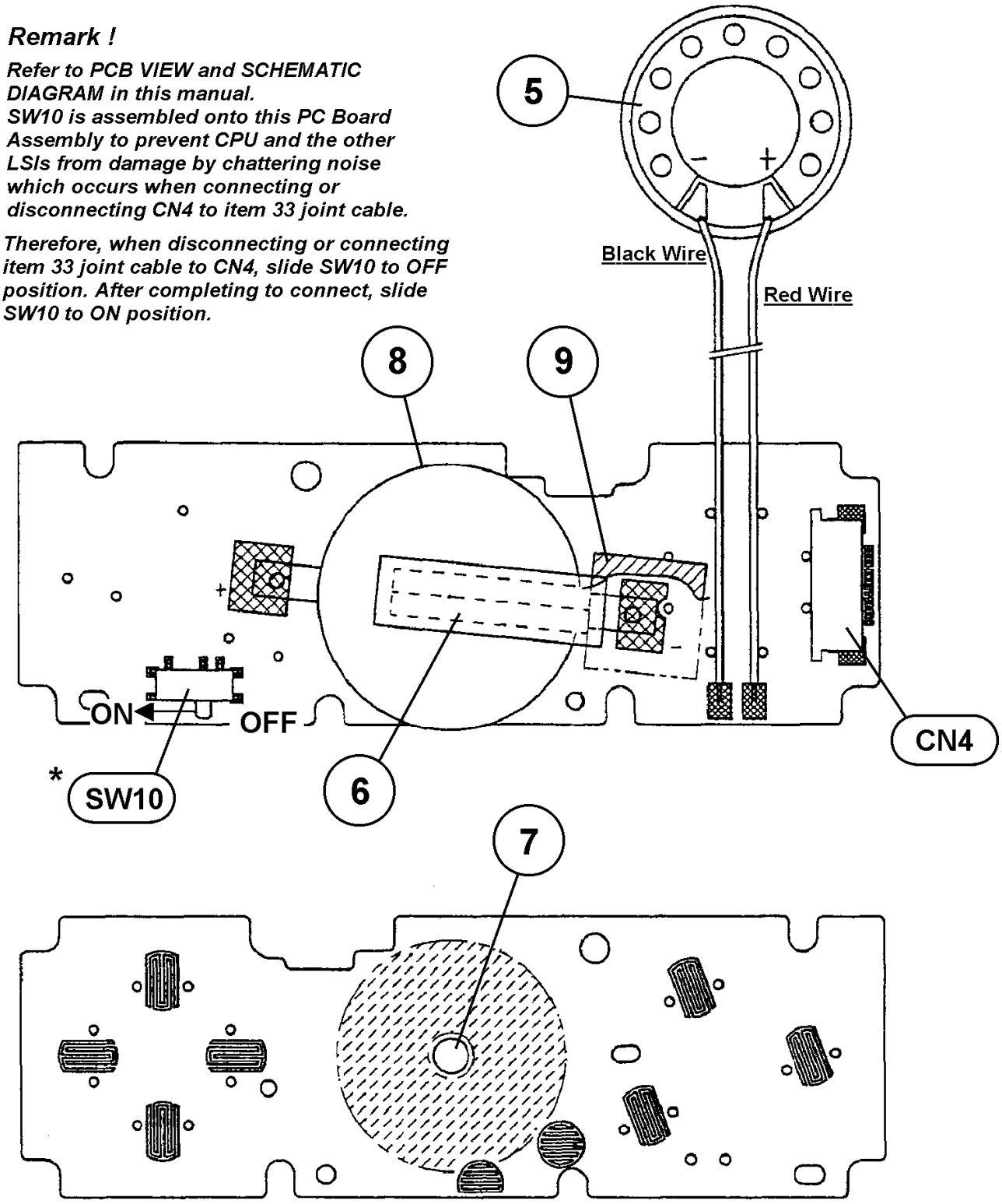


16-3. PCB ASSY/KEY

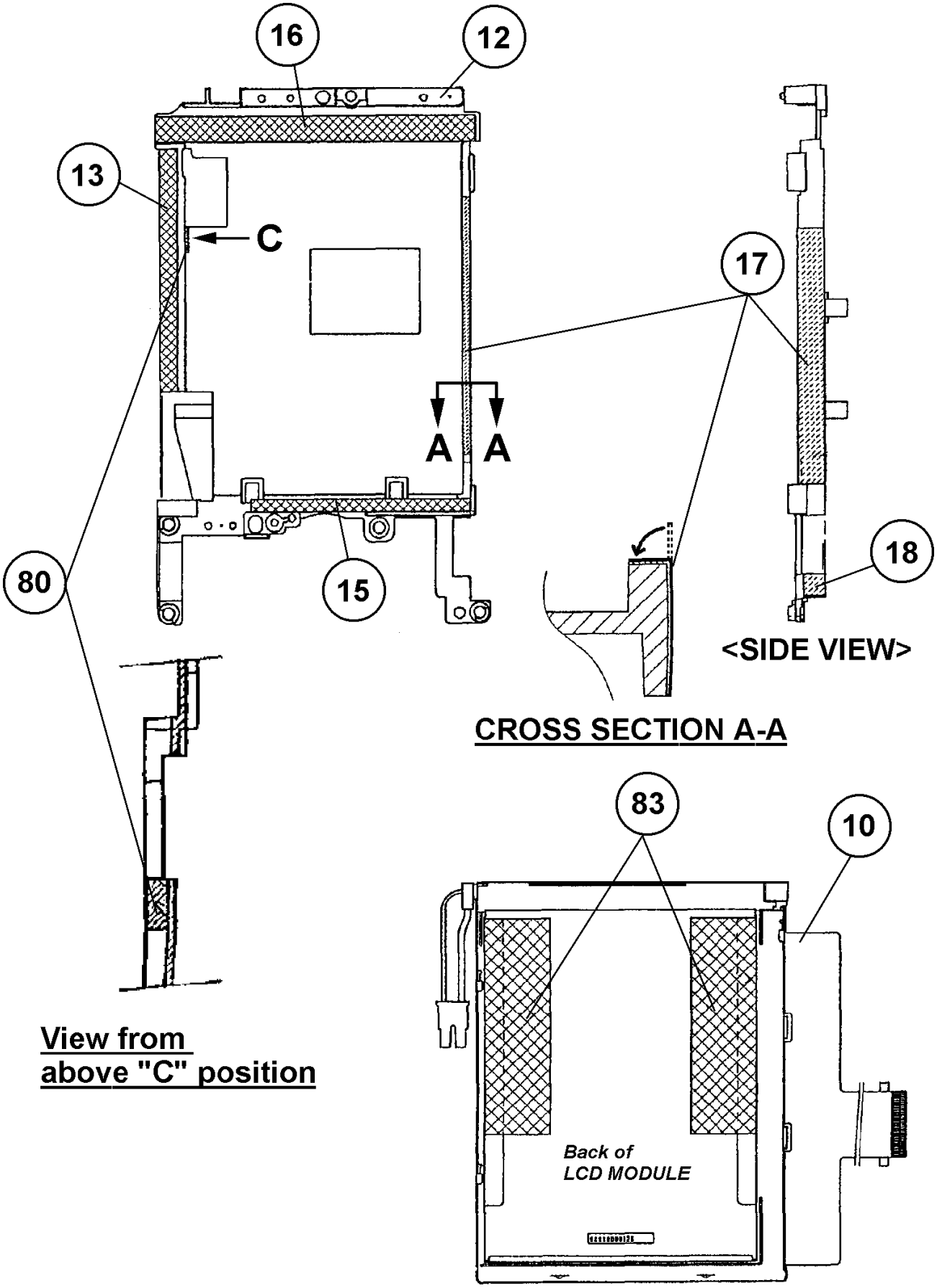
**** Remark !***

Refer to PCB VIEW and SCHEMATIC DIAGRAM in this manual.
SW10 is assembled onto this PC Board Assembly to prevent CPU and the other LSIs from damage by chattering noise which occurs when connecting or disconnecting CN4 to item 33 joint cable.

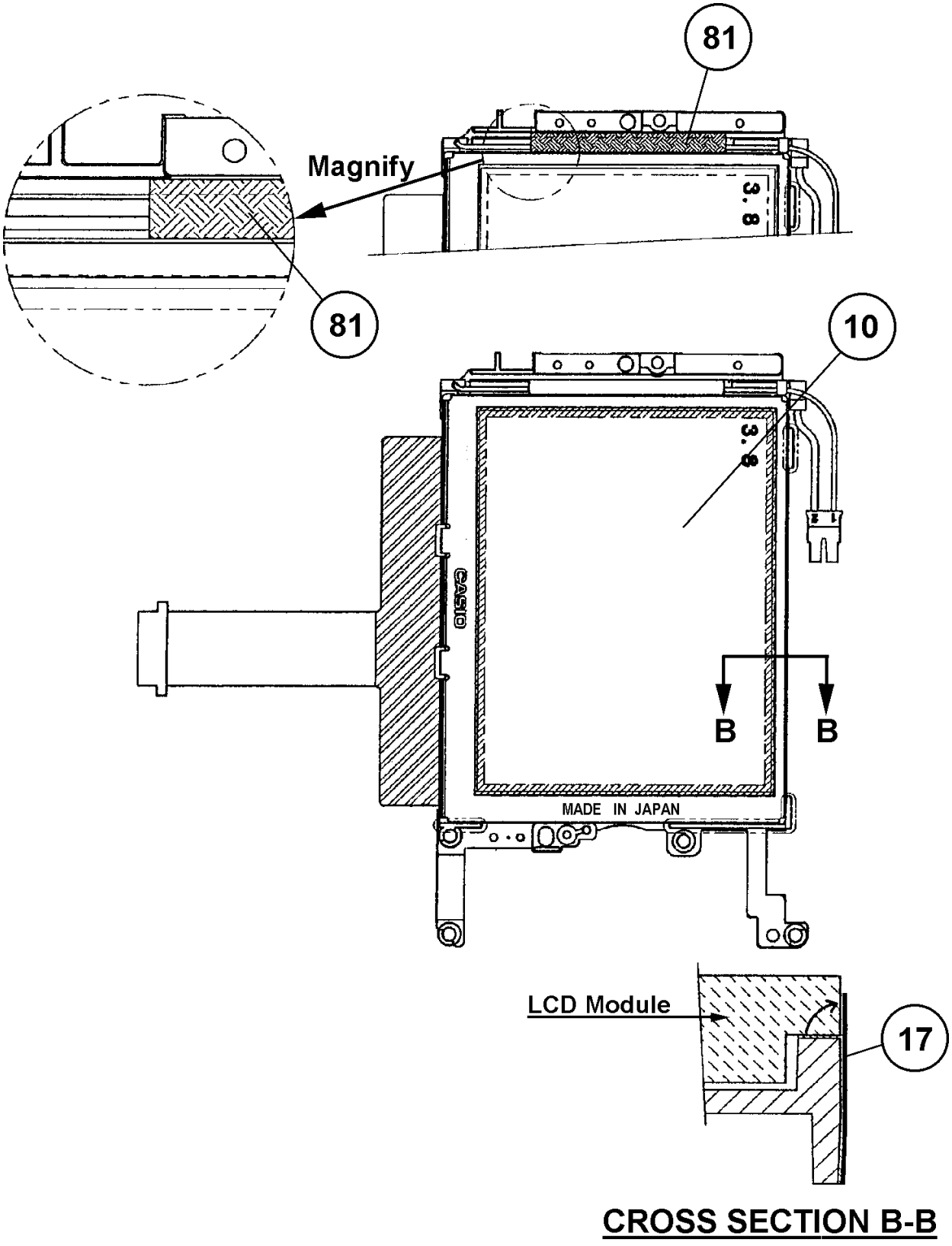
Therefore, when disconnecting or connecting item 33 joint cable to CN4, slide SW10 to OFF position. After completing to connect, slide SW10 to ON position.



16-4. INNER CASE UNIT (1/2)

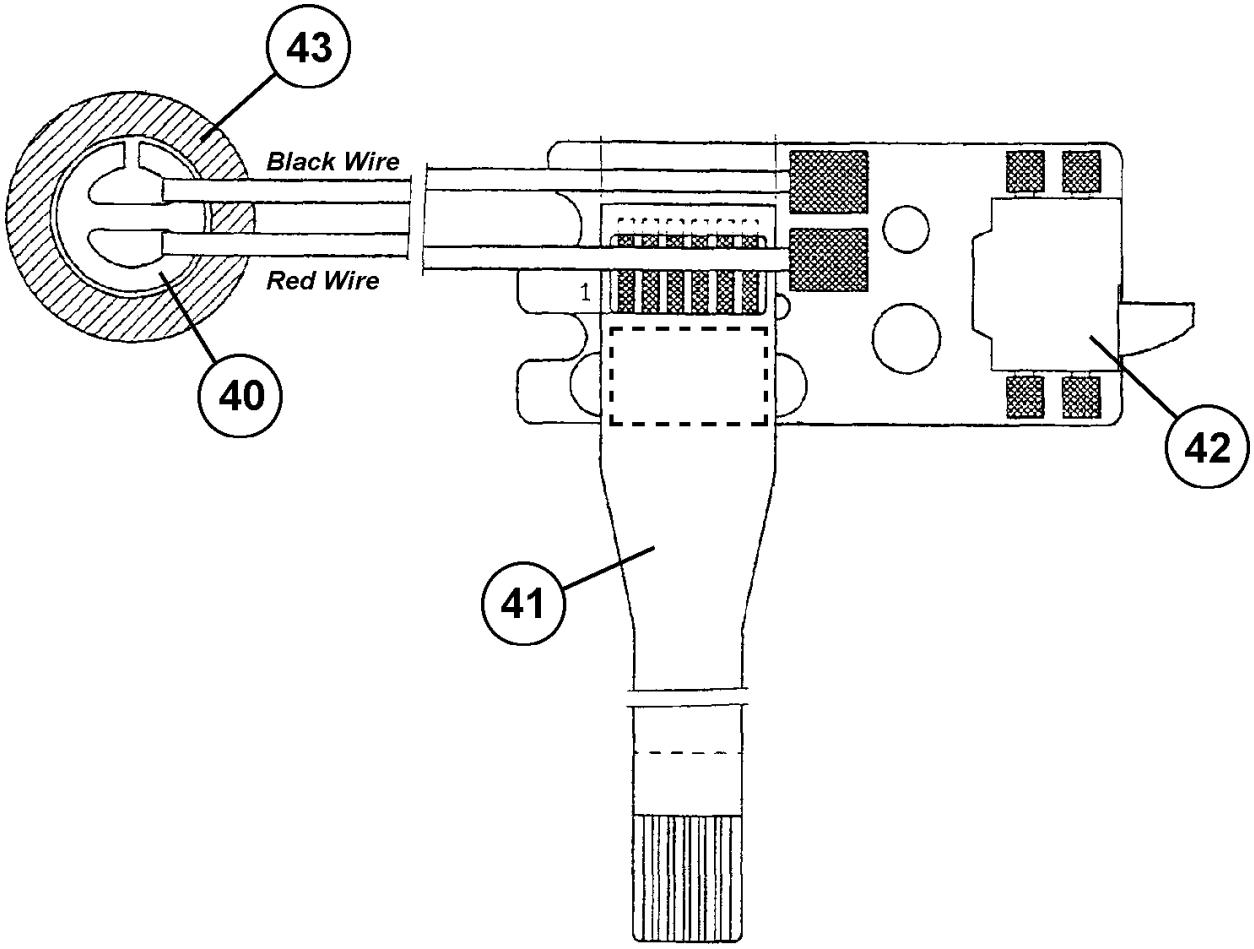


16-4. INNER CASE UNIT (2/2)

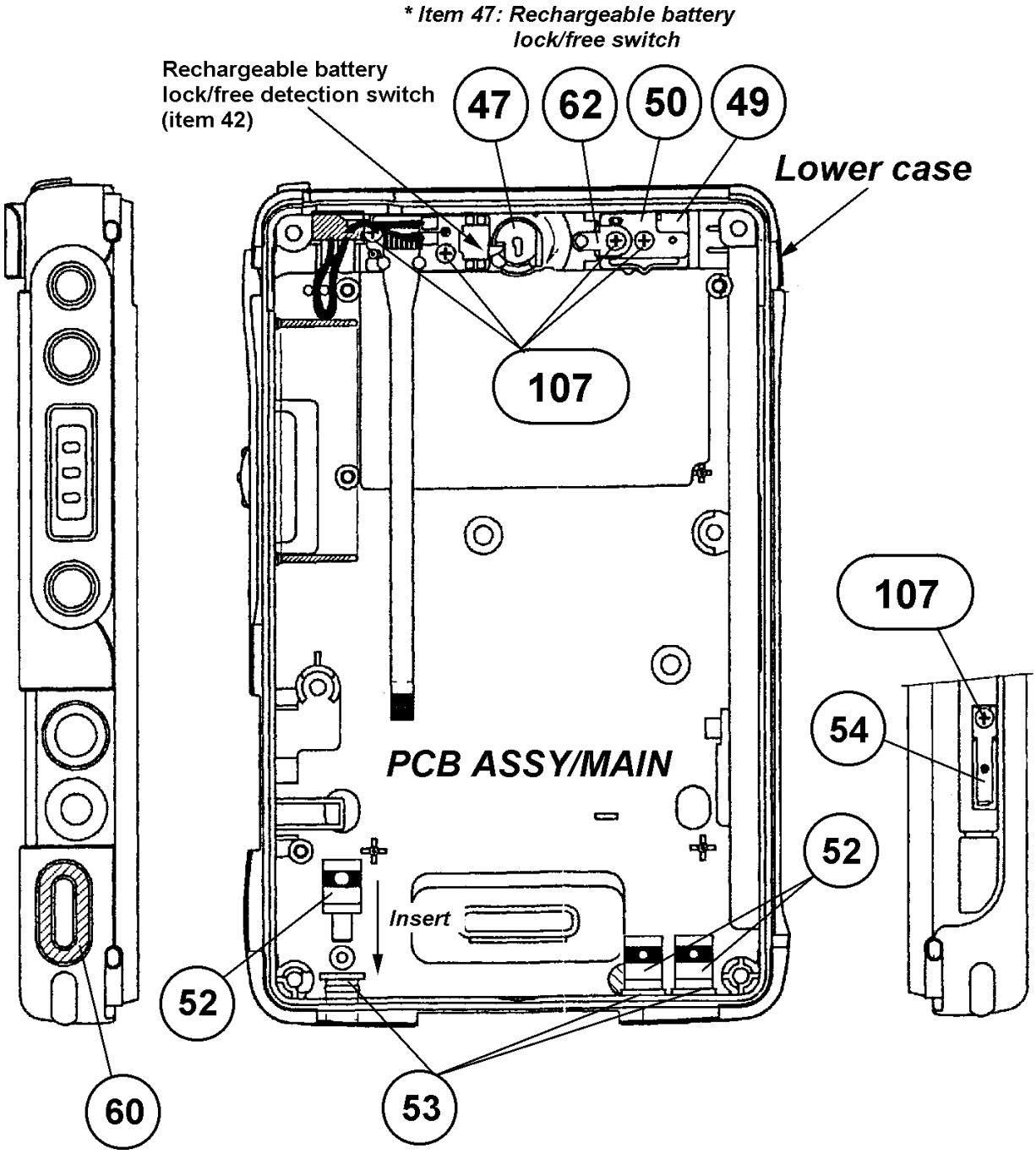


CROSS SECTION B-B

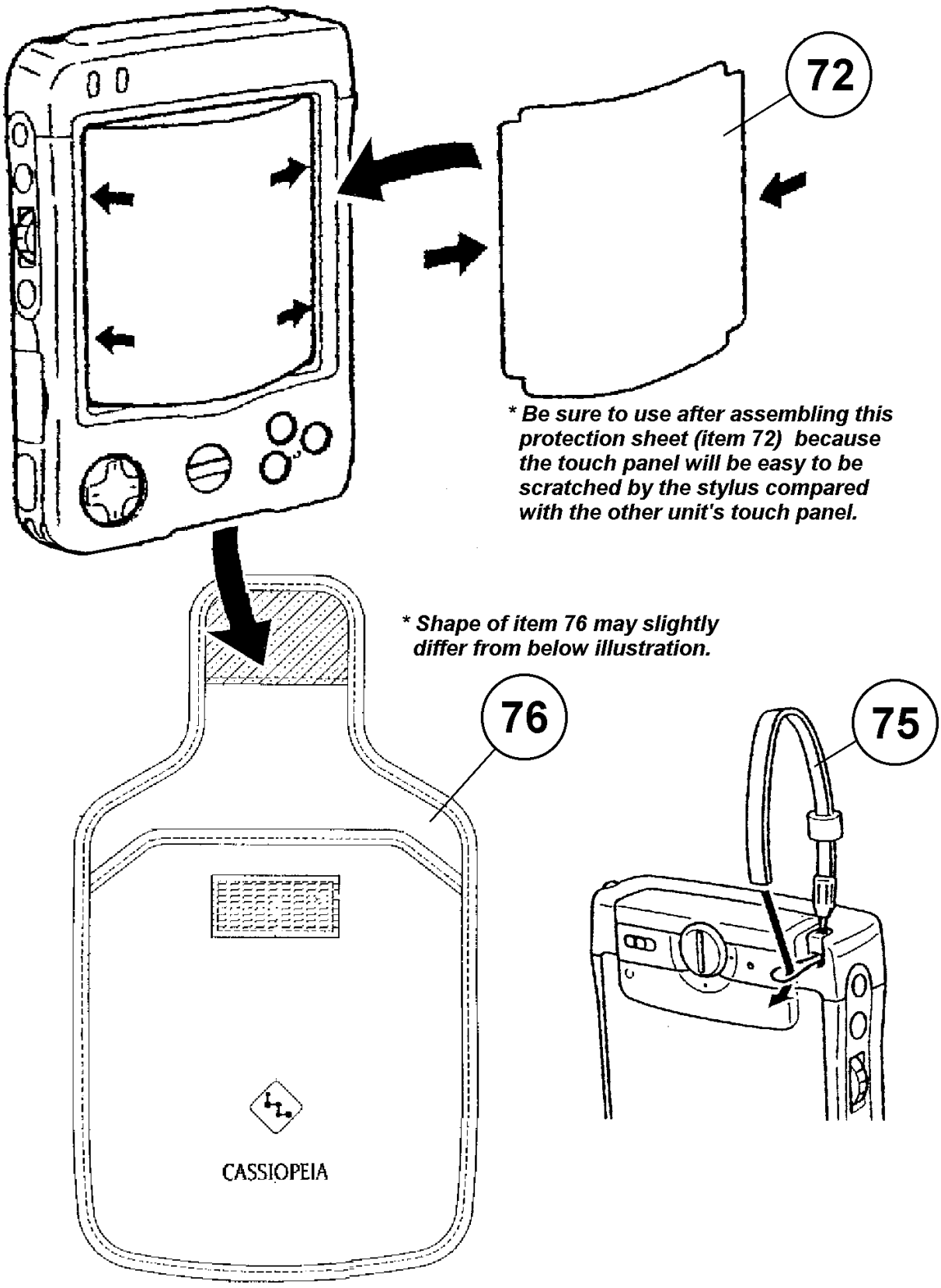
16-5. PCB ASSY/SWITCH



16-6. LOWER CASE ASSY



16-7. OTHERS


72
* Be sure to use after assembling this protection sheet (item 72) because the touch panel will be easy to be scratched by the stylus compared with the other unit's touch panel.
* Shape of item 76 may slightly differ from below illustration.
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CASSIOPEIA

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